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CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS/ DIET AND HEALTH KNOWLEDGE SURVEY 1994-96

1996 SURVEY OPERATIONS REPORT

Westat, Inc.
1650 Research Boulevard
Rockville, MD 20850

Agricultural Research Service
United States Department of Agriculture

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS/ DIET AND HEALTH KNOWLEDGE SURVEY 1994-96

1996 SURVEY OPERATIONS REPORT

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EXECUTIVE SUMMARY

The Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) 1994-96 are being conducted by Westat, Inc., under contract to the Agricultural Research Service, U.S. Department of Agriculture (ARS, USDA). Westat, Inc., was awarded the contract at the end of September 1992. A 1-year period beginning at contract award was devoted to the design, conduct, and evaluation of a Pilot Study as a dress rehearsal for the 3-year Main Survey. The Pilot Study allowed for the testing and evaluation of all survey procedures and materials, including sampling procedures, the training of the field staff, the ability to achieve high response rates, the data collection instruments, and the data processing activities. From October 1992 through September 1993, staff from Westat and ARS worked collaboratively on the Pilot Study in preparation for the Main Survey. Three years of continuous Main Survey data collection began in January 1994.

During the 3 years of data collection, interviewers conducted two 24-hour food Intake interviews (spaced 3 to 10 days apart) with approximately 15,000 sample persons (SPs). In households with eligible SPs, interviewers also administered a Household Questionnaire, which collected socioeconomic data about the household, and a Diet and Health Knowledge Survey (DHKS) Questionnaire that captured the selected SP's knowledge, attitudes, and behaviors on diet and health issues. This report documents the procedures and accomplishments of the CSFII/DHKS 1996, the third of the 3 survey years.[1]

A multistage area probability sample design was used to select persons for the Intake and DHKS interviews. The design included the selection of (1) 62 primary sampling units (PSUs), which are metropolitan statistical areas or groups of counties; (2) area segments within the sampled PSUs; (3) households within the selected segments; and (4) SPs within households.

The CSFII/DHKS 1996 was conducted by a field organization of 5 regional supervisors, 5 senior interviewers, and 93 interviewers (6 of whom were bilingual). Eighty-eight percent of the field staff also conducted the CSFII/DHKS 1995. The field staff new to the survey in 1996 attended 7 days of in-person training, which was monitored by ARS, on the use of all questionnaires, materials, and procedures. The field staff who conducted the CSFII/DHKS 1995 received 1 day of in-person training on refinements

[1] The contract for the CSFII/DHKS 1994-96 contains very specific requirements for sample precision and sample yields, data collection schedule and contact procedures, response rate targets, quality control procedures, data processing and delivery schedule and quality specifications, reporting schedule, and 21 contract deliverables. The efforts described in this report are in response to these requirements.

to the materials for the third year of the survey as well as on areas of survey administration needing improvement. To enable close supervision of data collection, Westat developed an automated Field Management System (FMS) that operated on laptop computers provided to the supervisors and interviewers. The FMS captured and reported interviewing production and cost data on a weekly basis. Quality control of interviewing was conducted throughout the year and included taped interviews, in-field observations of the interviewers at work by Westat and ARS staff, and validation interviews of a portion of each interviewer's work to confirm that the interviews had been conducted.

The interviewing for the CSFII/DHKS 1996 involved screening 10,705 of the 10,874 occupied households for basic demographic information about household members, for a Screener response rate of 98.4 percent. Of the screened households, 3,018 households had a total of 6,384 SPs selected for the Intake interview. Interviewers were able to complete Day 1 and Day 2 Intake interviews with 4,921 SPs, for an interview response rate of 77.1 percent. Additionally, 2,597 Household Questionnaires and 1,920 DHKS Questionnaires were completed, for response rates of 86.1 percent and 92.0 percent, respectively. The target response rates specified in the contract were exceeded for each of the survey's instruments.

Eleven food coders coded the Intake Questionnaires. The coding of food items on the Intake Questionnaires was accomplished using Survey Net, a computer-assisted food coding system designed for the CSFII and provided to Westat by ARS. Three coders reviewed and coded the non-Intake documents. The non-Intake documents were manually coded, keyed, and machine edited. The processed questionnaire data were delivered electronically to ARS once a week. Interviewers and coders received feedback on the results of the quality review performed at Westat and ARS.

Westat's Forms Tracking System (FTS) was used to track survey documents from receipt at the home office through delivery to ARS. A "snapshot" of FTS data was transmitted electronically to ARS every day. The FTS also generated reports on the status of data processing and the quality of Survey Net coding.

Two sets of sampling weights were calculated for the CSFII/DHKS 1996, one for the Day 1 Intake interviews and the other for the DHKS interviews. Jackknife replicate weights were also calculated to facilitate variance estimation.

1. INTRODUCTION

At the end of September 1992, Westat, Inc., was awarded a contract to conduct the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) 1994-96. The 1994-96 survey is the third in a series of U.S. Department of Agriculture surveys responsive to the National Nutrition Monitoring and Related Research Program requirements for the continuous collection, processing, and analysis of dietary status data of the U.S. population. The 1994-96 survey is the first to be conducted by Westat, Inc. The 1994-96 survey is being administered by the Agricultural Research Service (ARS), USDA.

The CSFII/DHKS 1994-96 contract was set up with an initial 1-year period, beginning at the time of contract award, for the design, conduct, and evaluation of a Pilot Study as a dress rehearsal for the Main Survey. Specifically, the Pilot Study was an opportunity to test all of the survey operations, procedures, and materials associated with the study's design. From October 1992 through February 1993, staff from Westat and ARS worked collaboratively in preparing for the Pilot Study. During this period, the study questionnaires were finalized and a Food Instruction Booklet (FIB) containing detailed probes for the interviewers to use during the Intake interview was extensively revised. Instructional manuals and training programs were developed for field supervisors, interviewers, and coders. Considerable effort was also spent on developing a set of materials that interviewers could use with respondents to gain their participation.

The Pilot Study was a very valuable experience for Westat and ARS. Survey participation and response rates were positive, and interviewers and coders were trained to collect and process high-quality data. The automated management systems developed to monitor the data collection and data processing activities, the Field Management System and the Forms Tracking System, provided timely information that was very useful for performing the work. The Survey Net system developed to code the food data was highly regarded by the data processing staff who used it. A report submitted to ARS at the conclusion of the Pilot Study outlined results and included recommendations for the Main Survey.

The Main Survey was intended to span 3 years of data collection beginning in January 1994, with each year a separate contractual option. As a result of the experience from the Pilot Study, staff from Westat and ARS worked collaboratively to revise the survey instruments and other materials for the Main Survey. Questionnaires were refined and the FIB was expanded and improved. The instructional manuals

and training programs for field supervisors, interviewers, and coders were also revised to reflect lessons learned from the Pilot Study. The CSFII/DHKS 1994 and 1995 were very successful in achieving many of their goals. Reports submitted to ARS at the conclusion of the CSFII/DHKS 1994 and 1995 provided detailed descriptions of the survey procedures and results. In preparation for Year 3 of the survey, refinements, primarily cosmetic, were made to the questionnaires, and the FIB was refined to reflect data collected and coder and interviewer suggestions from the previous year. This report covers the third of the 3 years of data collection for the Main Survey, referred to as the CSFII/DHKS 1996.[1]

The design of the CSFII/DHKS 1994-96 required that a sample of persons (referred to as SPs) participate in two 24-hour food Intake interviews spaced 3 to 10 days apart. To identify the SPs, interviewers carried out a screening procedure with a sample of dwelling units (DUs) to determine a specified number of SPs in accordance with the sample design requirements in the contract. Two additional questionnaires were completed at households with eligible SPs: A Household Questionnaire collecting socioeconomic data administered in person to a knowledgeable household respondent and a DHKS Questionnaire completed primarily by telephone with a selected SP 2 to 3 weeks after the second Intake interview.

The CSFII/DHKS is a multistage area probability sample design consisting of 62 primary sampling units (PSUs). These PSUs are metropolitan statistical areas or groups of counties selected with probabilities proportional to the 1990 population. Data collection occurred in all 62 PSUs during each year of the survey.

In each PSU, 36 second-stage sampling units (i.e., area segments consisting of Census blocks or block groups) were selected before the start of Main Survey data collection in January 1994. Within each PSU, one-third of the sampled segments were randomly assigned to each of the 3 years of the survey, and within each year, one-quarter of the segments were randomly assigned to each quarter of the year. Lists of addresses of every DU within each area segment were compiled. From the lists of DUs, a self-weighting sample of approximately 12,000 DUs was selected for the CSFII/DHKS 1996. To enable interviewers to systematically select SPs within sampled DUs, 1 of 13 sampling messages for Quarters 1 and 2, or 1 of 17 sampling messages for Quarters 3 and 4, were assigned to each household. A description of the sample design can be found in Chapter 2 of this report.

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[1] The contract for the CSFII/DHKS 1994-96 contains very specific requirements for sample precision and sample yields, data collection schedule and contact procedures, response rate targets, quality control procedures, data processing and delivery schedule and quality specifications, reporting schedule and 21 contract deliverables. The efforts described in this report are in response to these requirements.

A field organization of 5 regional supervisors, 5 senior interviewers, and 93 interviewers conducted the CSFII/DHKS 1996. The regional supervisors and senior interviewers and 82 interviewers who conducted the CSFII/DHKS 1995 attended a 1-day training session in early January 1996. The session was devoted to instruction on changes to the 1995 survey documents and retraining on particularly complex or difficult materials and procedures. An additional 11 interviewers were hired and trained during 1996 to replace interviewers who left the field force in the second half of 1995 or early in 1996. At a 7-day in-person session, these interviewers received instruction in the use of all questionnaires and procedures, with extensive hands-on practice with the instruments, the FIB, and the food measuring guides. As part of training, each trainee interviewed a respondent who was brought into the session. In addition, after leaving training and before beginning interviews, each interviewer had to complete a practice interview that was reviewed by his or her supervisor and a mock interview that was conducted by telephone with the supervisor.

Based on the workload in the PSU, 26 of the PSUs were staffed with two or more interviewers and 36 PSUs were staffed with one interviewer. Each regional supervisor was responsible for 12 PSUs and approximately 20 percent of the interviewing workforce. The supervisors were in direct communication with the interviewers and reported to the field director in Westat's home office. Supervisors assigned work to their interviewers and monitored production, costs, and the quality of each interviewer's work. Each supervisor was assisted by a senior interviewer, who was available to travel to convert nonresponse cases and observe the interviewers at work.

As will be described in Chapter 3 of this report, the interviewing for the CSFII/DHKS 1996 involved screening 10,705 of the 10,874 occupied households, representing a 98.4 percent Screener response rate. Of the screened households, 3,018 households had a total of 6,384 SPs eligible for the Day 1 Intake interview and 6,383 eligible for the Day 2 Intake. Interviewers were able to complete Day 1 and Day 2 Intake interviews with 4,921 SPs, for an interview response rate of 77.1 percent. Additionally, 2,597 Household Questionnaires and 1,920 DHKS Questionnaires were completed, for response rates of 86.1 percent and 92.0 percent, respectively.[2]

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[2] The numbers eligible differ from the numbers selected because the numbers eligible do not include households or SPs who left the population of interest before having a chance to participate: one household, two SPs before completing the Day 1 Intake interview, three SPs before completing the Day 2 Intake interview, and one SP selected for the DHKS. These ineligible households and SPs are not included in the denominator of the response rate calculations reported on page 3-32. For a discussion of the population of interest, see pages 6-1 and 6-2 of this report.

Quality control of the interviewing process was conducted throughout the year. Regional supervisors reviewed practice interviews, listened to taped interviews, conducted in-field observations of the interviewers at work, and performed validation procedures to confirm that interviews had been conducted. In addition, an extensive quality review was completed when the questionnaires were receipted in the home office and interviewers received feedback on the results of this review.

To enable close supervision of the data collection, Westat developed an automated Field Management System (FMS). The FMS captured and reported data on field production and costs. Field interviewers and supervisors operated the FMS software on laptop computers. Once a week, the interviewers transmitted field production and cost data to the home office that in turn was downloaded to the supervisors. Reports on response rates, production, and costs were generated weekly.

The data processing of questionnaires, described in Chapter 4, began shortly after the start of data collection. Materials and systems developed for the CSFII/DHKS 1995 were revised to reflect a small number of changes to the survey documents. Materials and systems included programs for data entry and cleaning, instructional manuals for reviewing and coding Intake and non-Intake questionnaires (i.e., the Screener, the Household Questionnaire, and the DHKS Questionnaire), file layouts, and an automated Forms Tracking System to monitor the stages of data processing.

Eleven food coders, the majority of whom were trained for the CSFII/DHKS 1994, coded the Intake questionnaires. Three coders coded the non-Intake questionnaires.

When questionnaires arrived in the home office, they were first reviewed to be sure that the minimum set of data items was present to consider the questionnaire completed. The coding of food items reported on the Intake Questionnaires was accomplished using Survey Net, a computerized food coding system designed for use in the CSFII/DHKS 1996 and provided to Westat by ARS. ARS worked closely with Westat to modify Survey Net after the Pilot Study. As a quality control measure, 10 percent of Intake Questionnaires were double-coded using Survey Net and adjudication reports were produced. Discrepancies were resolved by Westat's coding supervisor. All coding decisions and questions were recorded in Survey Net for review by ARS.

The non-food questions on the Intake Questionnaire and the non-Intake documents underwent manual coding and data entry in Westat's production data entry shop, using the Tartan system of data entry hardware and software. As a quality control measure, 100 percent of the non-food data were independently

double entered. Following key entry, the data were machine edited using programs developed with COED, Westat's software system for cleaning survey data. The COED software generated machine edit programs, which checked that all keyed data were within the acceptable ranges and that all skip patterns had been followed correctly. Uncodeable and out-of-range responses were recorded for review by ARS staff. Special programs were also written to check Survey Net coversheet entries against the Tartan/COED data. The processed questionnaire data were delivered electronically to ARS once a week.

Westat developed the Forms Tracking System (FTS) to manage receipt and processing activities performed at the home office. The system tracked a document from the time it arrived at the home office until it was delivered to ARS. Current FTS data were electronically transmitted to ARS every day. The FTS also generated weekly reports, which detailed the number of documents received, the number of documents at each stage of processing, and the status of the coder quality control operations. These reports were electronically transmitted to ARS weekly.

Throughout the survey year, ARS was actively involved with Westat in the management of the survey. Westat submitted monthly progress reports and participated in quarterly progress meetings, as called for in the contract, to report on the status of the project. Additional meetings between Westat and ARS were held as needed to discuss topics such as data processing, revisions to the FIB, and weighting of the survey data. ARS staff accompanied interviewers in the field for in-person observations. The Westat project director and the ARS Project Officer held weekly telephone calls to discuss progress of the survey. In addition, Westat's director of data processing was in regular telephone contact with key ARS staff responsible for Survey Net coding and the quality of the Intake and non-Intake data.

The CSFII/DHKS 1996 was successful in achieving many of its goals. The response rates specified in the contract for the various instruments were all exceeded. The number of completed dietary Intake interviews required for the third of the 3-year sample design plan met or exceeded the goal for most of the 40 sampling domain groups. Westat's staff and approach to processing the data allowed for the delivery of questionnaire data within 30 days of receipt at Westat and review of the questionnaire within 2 days of receipt at Westat. The feedback received from ARS on the quality of the data delivered by Westat was instructive and positive. The staff, systems, and operating procedures developed for the CSFII/DHKS 1994-1996, as well as Westat's collaborative working relationship with ARS, provided a firm basis for the final year of the survey.

GLOSSARY OF ACRONYMS

ARS, USDA	Agricultural Research Service, United States Department of Agriculture
CHAID	Chi-squared Interaction Detector
CPS	Current Population Survey
CSFII	Continuing Survey of Food Intakes by Individuals 1994-96
CV	coefficient of variation
DHKS	Diet and Health Knowledge Survey
DU	dwelling unit
FIB	Food Instruction Booklet
FMS	Field Management System
FTS	Forms Tracking System
MSA	metropolitan statistical area
NALS	National Adult Literacy Survey
NHIS	National Health Interview Survey
NIRF	Non-interview Report Form
PSU	primary sampling unit
SP	sample person
TIGER	Topologically Integrated Geographic Encoding and Referencing (file)
VEU	variance estimation unit
WIC	Special Supplemental Food Program for Women, Infants, and Children

2. SAMPLE DESIGN

The purpose of this chapter is to describe the sample design for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) for 1996. However, the full CSFII/DHKS runs over the calendar years 1994 through 1996, and the overall sample design is constructed to satisfy objectives for the full survey. Thus, although the discussion below focuses mainly on the 1996 sample, the sample design for the full survey must be presented. Attachment 2.A contains selected procedural memos related to sampling for the CSFII/DHKS 1994-96.

2.1 Introduction and Overview

The primary goal of the sample design for the CSFII/DHKS 1994-96 is to obtain nationally representative samples of noninstitutionalized persons residing in the United States for each of 40 analytic domains defined by sex, age (10 age groups), and income level (a "low-income" group and an "all-income" group) that are aimed to meet specified precision levels for estimates of mean Day 1 saturated fat and iron intakes. Excluded are persons living in group quarters or institutions, residing on military installations, and the homeless. The specific precision levels were that (1) the coefficients of variation (CV) for mean saturated fat and iron intakes should be 3 percent or less for each of the 20 all-income sex-age domains and (2) the corresponding CVs for the low-income sample should be 5 percent or less for each sex-age domain (Section II.1.1.2 of the Survey Operations Plan). These precision goals translate to the 3-year target sample sizes summarized in Table 2-1. In addition, the CSFII/DHKS design specifies that one Day 1 Intake respondent (20 years of age or older) be selected for the DHKS from each household with at least one Day 1 Intake respondent aged 20 or over. It should be noted that for the CSFII/DHKS 1994-96, a single sample was designed with precision requirements by income level. In the past, a separate sample of low-income persons was also designed and selected, in addition to the basic general sample (see Section I.B of the Statement of Work).

Table 2-1. Three-year sample size goals for the CSFII/DHKS 1994-96

Sex	Age group (years)	Income group	
		Low income*	All income (total sample)
Male	1-2	207	719
	3-5	207	719
	6-11	207	719
	12-19	207	719
	20-29	207	793
	30-39	207	850
	40-49	207	850
	50-59	207	850
	60-69	207	850
	70+	207	793
Female	1-2	207	719
	3-5	207	719
	6-11	207	719
	12-19	207	719
	20-29	207	739
	30-39	207	793
	40-49	207	850
	50-59	207	850
	60-69	207	793
	70+	207	719
Total		4,140	15,482

*Households with incomes below 130 percent of Federal poverty guidelines.

A complex multistage area probability sample design was used to select persons for the Intake and DHKS interviews. The design was a stratified multistage area probability sample that included the selection of geographical areas called primary sampling units (PSUs), area segments within the sampled PSUs, households within the selected segments, and sample persons (SPs) within the households. The major features of the sample design are summarized below:

- The first-stage sample was a stratified sample of 62 PSUs consisting of metropolitan statistical areas (MSAs) or groups of counties. PSUs were selected within strata of approximately equal size, with probabilities proportional to the 1990 population.

- Thirty-six area segments (consisting of Census blocks or groups of blocks) were selected from each PSU, for a total of 2,232 area segments for the 3-year survey. The 36 segments selected from each PSU were then divided into 12 sets of 3 segments each, and a set of 3 segments per PSU was assigned to each of the 12 quarters of the 3-year survey period.

- Within the sampled segments, lists of dwelling units (DUs) were prepared by Westat interviewers. More than 107,000 DUs were listed for the third year of the study. From the lists of DUs, a self-weighting sample of approximately 12,000 DUs was selected for the CSFII/DHKS 1996.

- Within the occupied DUs identified during screening, persons eligible for the survey were selected by a probability sampling process designed to achieve the specified sample sizes for various sex-age-income domains (see Table 2-1).

- Finally, in households containing SPs 20 years of age or older who completed the Day 1 Intake interview, one was randomly selected for the DHKS.

Additional details about the CSFII/DHKS sample design and selection procedures are given in Sections 2.2 through 2.6. Section 2.2 describes the procedures used to select the sample of PSUs. Section 2.3 describes the selection of area segments within PSUs (including the use of an existing sample of previously listed segments to reduce costs), and Section 2.4 discusses the procedures for selecting DUs within the sampled segments. Finally, Sections 2.5 and 2.6 describe the procedures for selecting household members for the Intake and DHKS interviews.

2.2 Selection of Primary Sampling Units

The sampling frame of PSUs was created from county-level data contained in the 1990 Census Public Law 94-171 (PL 94) and the Bureau of Economic Analysis data files. The PL 94 data file provided county-level population counts by race and Hispanic origin, while the Bureau of Economic Analysis file provided the corresponding income information. In general, PSUs were defined to be MSAs or groups of contiguous counties. Because of their large populations, the New York MSA was divided into three PSUs and the Los Angeles and Chicago MSAs were each divided into two PSUs. Each of the remaining MSAs comprised a single PSU. Counties outside of MSAs were grouped, as necessary, to form PSUs that (1) had a minimum 1990 population of 15,000 persons, (2) were as internally heterogeneous as possible, and (3) were still small enough to permit convenient travel across the PSU by interviewers. From the more than 3,000 counties in the United States, 1,404 PSUs were created.

The 24 largest PSUs in the frame were included in the sample with certainty. The remaining (noncertainty) PSUs were then assigned to 1 of 38 strata of approximately equal size (in terms of 1990 population), and one PSU was selected per stratum with probability proportional to 1990 population. The following stratification variables were used (some explicitly and some implicitly) to select the noncertainty PSUs:

- Region of the country (four Census regions);
- Whether or not the PSU is an MSA (among the noncertainty strata, 26 were MSA strata and 12 were non-MSA strata);
- Population of the MSA;
- Percentage of the population in the PSU who are black or Hispanic; and
- Per-capita income.

The definitions of the 38 noncertainty strata are documented in Table 2-2A, and the distribution of the sampled PSUs by Census region and MSA status is summarized in Table 2-2B. The locations of the 62 sampled PSUs are shown in Exhibit 2-1 to provide an indication of the geographic spread of the PSU sample. Attachment 2.B provides a list of the sampled PSUs along with selected characteristics of the PSUs.

Table 2-2A. Definition of noncertainty PSU strata for the CSFII/DHKS

PSU stratum code	Census region	Metropolitan status	1990 PSU population size class	Income or minority status
C101	Northeast	Non-MSA	—	All PSUs
B101	Northeast	MSA	1,000,000+	$23,053 or more per-capita income
B102	Northeast	MSA	1,000,000+	Less than $23,053 per-capita income
B103	Northeast	MSA	<1,000,000	$19,275 or more per-capita income
B104	Northeast	MSA	<1,000,000	$17,280-19,052 per-capita income
B105	Northeast	MSA	<1,000,000	$15,993-17,192 per-capita income
B106	Northeast	MSA	<1,000,000	$12,280-15,927 per-capita income
C201	Midwest	Non-MSA	—	$14,123 or more per-capita income
C202	Midwest	Non-MSA	—	$13,291-14,121 per-capita income
C203	Midwest	Non-MSA	—	$12,188-13,272 per-capita income
C204	Midwest	Non-MSA	—	$7,096-12,174 per-capita income
B201	Midwest	MSA	900,000+	$17,156 or more per-capita income
B202	Midwest	MSA	900,000+	Less than $17,156 per-capita income
B203	Midwest	MSA	<900,000	$16,475 or more per-capita income
B204	Midwest	MSA	<900,000	$15,713-16,466 per-capita income
B205	Midwest	MSA	<900,000	$14,418-15,647 per-capita income
B206	Midwest	MSA	<900,000	$10,185-14,389 per-capita income
C301	South	Non-MSA	—	33 percent or more black persons
C302	South	Non-MSA	—	20-32.8 percent black persons
C303	South	Non-MSA	—	$12,696 or more per-capita income
C304	South	Non-MSA	—	$11,190-12,612 per-capita income
C305	South	Non-MSA	—	$6,115-11,167 per-capita income
B301	South	MSA	—	31.6 percent or more black persons
B302	South	MSA	—	Less than 31.6 percent black persons, and $14,744 or more per-capita income
B303	South	MSA	—	Less than 31.6 percent black persons, and less than $14,744 per-capita income
B304	South	MSA	—	14.5 percent or more Hispanic persons
B305	South	MSA	900,000+	$16,399 or more per-capita income
B306	South	MSA	900,000+	Less than $16,399 per-capita income
B307	South	MSA	<900,000	$15,432 or more per-capita income
B308	South	MSA	<900,000	$14,059-15,068 per-capita income
B309	South	MSA	<900,000	$11,262-14,017 per-capita income
C401	West	Non-MSA	—	$12,885 or more per-capita income
C402	West	Non-MSA	—	Less than $12,885 per-capita income
B401	West	MSA	—	26.3 percent or more Hispanic persons
B402	West	MSA	—	13.2-24.3 percent Hispanic persons
B403	West	MSA	1,300,000+	$17,057-19,667 per-capita income
B404	West	MSA	500,000-1,299,999	$13,087-17,540 per-capita income
B405	West	MSA	<500,000	$9,993-21,840 per-capita income

Table 2-2B. Distribution of 62 CSFII/DHKS PSUs by Census region and MSA status

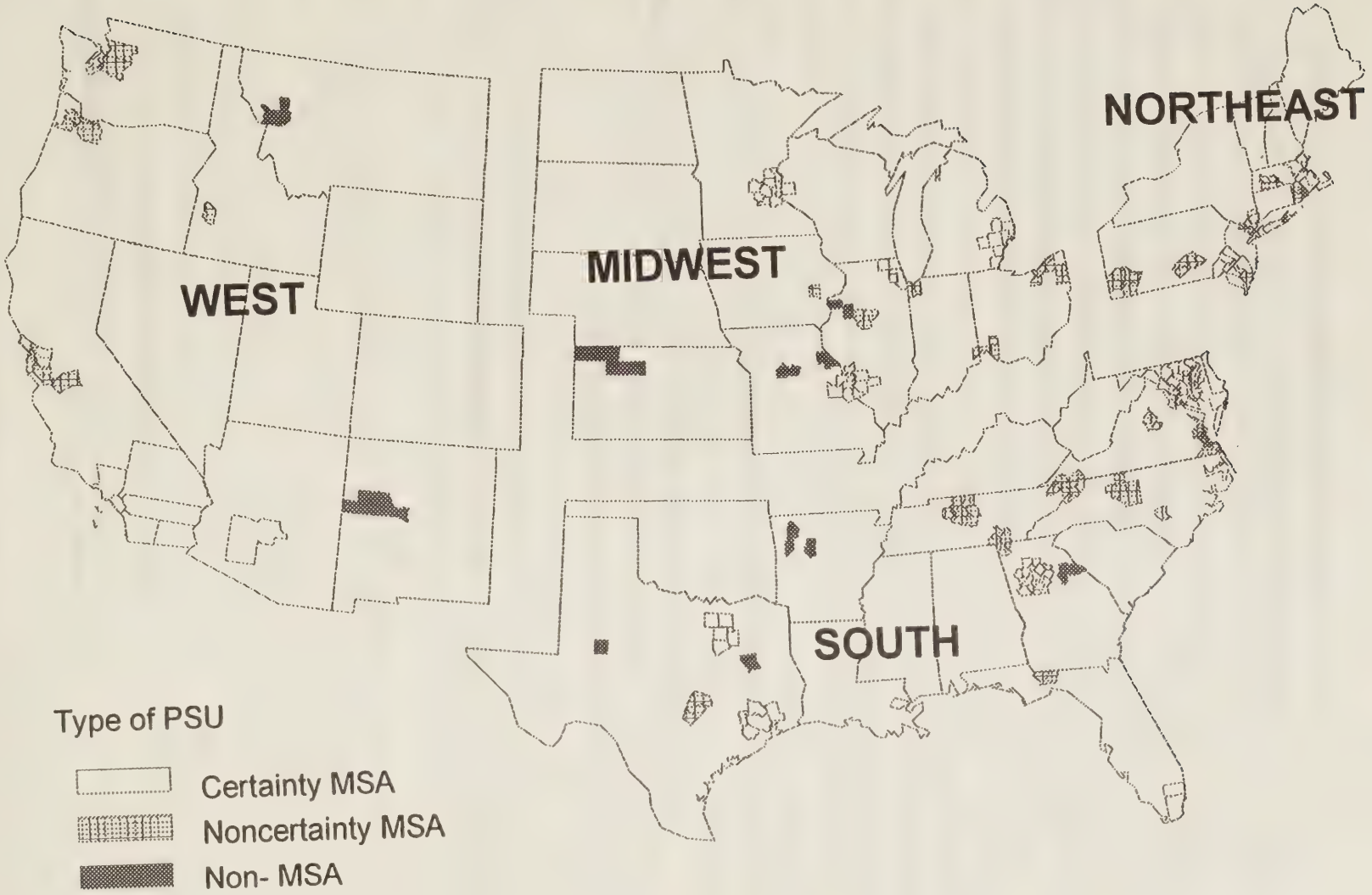
Census region	Type of PSU			Total
	Certainty MSA	Noncertainty MSA	Non-MSA	
Northeast	6	6	1	13
Midwest	5	8	4	17
South	6	7	5	18
West	7	5	2	14
Total	24	26	12	62

2.3 Selection of Area Segments

The second-stage sampling units were area segments, which were defined to be individual Census blocks or a group of blocks. A sample of 36 area segments was randomly selected from each PSU with probabilities proportional to the number of dwelling units. The 36 segments selected from each PSU were then divided into 12 sets of 3 segments each, and a set of 3 segments per PSU was assigned to each of the 12 quarters of the 3-year survey period. As described below, segments were assigned to the quarters of the year in a balanced random manner to ensure a wide spread of the segment sample within each quarter for each PSU. This balanced sampling was carried out in order to improve sampling precision by reducing the design effects resulting from the homogeneity of persons within segments.

The first step in the sampling process was to create a frame of area segments for each of the 62 sample PSUs. This frame was constructed from the Census Bureau's 1990 PL 94 data tape, which contains population, housing counts, and limited geographic information for each block in the United States. To ensure that the segments would be of sufficient size for use in sampling, small blocks were combined with adjacent blocks to form segments that had a minimum expected size of 60 dwelling units (DUs). After the frame had been constructed, the area segments were sorted into minority strata (depending on the proportion of black and Hispanic persons in the segment) and geographically within minority strata before sample selection. For each of the 3 years of the study, a systematic sample of 12 area segments was selected from the sorted frame with probabilities proportional to the number of DUs in the segment.

Exhibit 2-1. Sample of 62 primary sampling units by Census region for the CSFII 1994-96



To reduce sampling costs, advantage was taken of a national sample of segments that Westat had previously selected and listed in the selected PSUs. The sample developed for the National Adult Literacy Survey (NALS) used basically the same sampling procedures required for the CSFII/DHKS, except that high-density minority segments were selected at about twice the rate of the nonminority segments. For the NALS, the segments were deliberately made much larger than needed (they were designed to contain a minimum of 60 DUs) so that they could serve as the equivalent of a master segment sample that could be used for other studies. Fifty-six percent of the 2,232 segments required for the CSFII/DHKS sample could be drawn from the previously selected NALS segments. The remaining segments were selected in a way that yielded the desired overall probabilities of selection while maximizing the overlap with the NALS sample (see Section 2.3.1). Use of the master segment sample reduced the cost of sampling, mapping, and listing by about 40 percent. It should be noted that although the listings from the master sample were about 4 years old when the third year of the CSFII/DHKS was conducted, the listings were updated through standard quality control procedures (see Section 2.4.4).

2.3.1 Procedures to Maximize Overlap with the National Adult Literacy Survey Sample

The following procedure was used to select the segment sample. It can be shown that the procedure produces a segment sample with the desired probabilities of selection for the CSFII/DHKS, while maximizing the overlap with the previous NALS sample.[1]

For a given PSU, let p_i denote the (within-PSU) probability of selecting the i-th segment for NALS, and let P_i denote the corresponding desired probability of selecting the segment for the CSFII/DHKS. Specifically,

$$p_i = \frac{M_i^{NALS}}{I}$$

and

$$P_i = \frac{36 M_i^{CSFII}}{\sum_{i=1}^{N} M_i^{CSFII}}$$

where

M_i^{NALS} = the NALS measure of size for segment i;

I = the sampling interval used to select the NALS segment sample within the given PSU;

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[1] Brick, M., Morganstein, D., and Wolters, C. (1987). Additional uses for Keyfitz selection. *Proceedings of the Section on Survey Research Methods of the American Statistical Association*, pp. 787-791.

M_i^{CSFII} = the number of DUs[2] in segment i; and

$\sum_{i=1}^{N} M_i^{CSFII}$ = the total CSFII/DHKS measure of size for the PSU.

The NALS measure of size, M_i^{NALS}, was a weighted sum of the within-segment population counts for minority and nonminority groups that was designed to give the high-density minority segments a relatively higher probability of selection than the nonminority segments. Because there was no requirement to "oversample" high-density minority segments for the CSFII/DHKS, the procedure described below had the effect of adjusting for the higher-than-desired selection probabilities of these segments.

Within a PSU, the "frame" of area segments was divided into the four classes listed in Table 2-3. The appropriate "conditional selection probability" defined in the last column of Table 2-3 was then assigned to each segment in the frame. For example, if a segment was previously selected for the NALS sample and $P_i \geq p_i$ (class A), then this segment was assigned a conditional selection probability of 1 and was retained in the CSFII/DHKS sample with conditional certainty. On the other hand, segments in class D (i.e., non-NALS segments with a smaller CSFII/DHKS probability than NALS probability) were assigned a conditional probability of 0 and thus had no chance of being selected for the CSFII/DHKS (although they did have an appropriate chance of selection in the original NALS sampling process).

Let a be the number of segments in class A (i.e., NALS segments to be retained for the CSFII/DHKS). With a required 36 segments per PSU for the CSFII/DHKS, an additional (36–a) segments were selected from classes B and C with probabilities proportional to the conditional selection probability. Before selection, the file of segments was sorted to reflect the implicit stratification used in the NALS sample selection. Of the 2,232 segments selected for the CSFII/DHKS, 1,254 were NALS segments.

Table 2-3. Definition of segment classes used to select CSFII/DHKS segments and corresponding probabilities of retention

Class	Description	Conditional (on NALS status) selection probability
A	Segments in the NALS sample for which $P_i \geq p_i$	1
B	Segments in the NALS sample for which $P_i < p_i$	P_i/p_i
C	Non-NALS segments for which $P_i \geq p_i$	$(P_i - p_i)/(1 - p_i)$
D	Non-NALS segments for which $P_i < p_i$	0

[2] Some blocks are recorded in the Census files as having 0 DUs. All such blocks were retained in the sampling frame and given a minimum sampling measure of size of 60. This was done to avoid excluding blocks containing newly constructed DUs that were not reflected in the Census file counts.

2.3.2 Assignment of Segments to Years and Quarters

After the segments had been selected, they were numbered sequentially from 1 to 36 within each PSU to reflect the original NALS selection order. Table 2-4 was then used to assign the segments from each PSU to 1 of 12 "segment groups." A random permutation of the integers 1, 2, and 3 (denoted by A, B, and C) and another random permutation of the integers 1, 2, 3, and 4 (denoted by Q, R, S, and T) were generated separately for each of the 62 sample PSUs. The 12 segment groups were then assigned to 1 of the 3 survey years A, B, or C and to quarters Q, R, S, and T, as indicated in Table 2-4. The use of the 12 segment groups defined in Table 2-4 was intended to balance the spread of the sampled segments for each year across the sorted frame of segments.

Table 2-4. Assignment of ordered segments to segment groups, years, and quarters

Segment group	Ordered CSFII/DHKS segment number in PSU			Year	Quarter
1	1	25	24	A	Q
2	3	27	22	B	Q
3	5	29	20	C	Q
4	7	31	18	A	R
5	9	33	16	B	R
6	11	35	14	C	R
7	13	36	12	A	S
8	15	34	10	B	S
9	17	32	8	C	S
10	19	30	6	A	T
11	21	28	4	B	T
12	23	26	2	C	T

2.4 Selection of Dwelling Units

The following sections describe the procedures used to select the sample of DUs for the third year of the survey. These sections summarize the procedures used to create the segment-level lists (frames) of DUs (Section 2.4.1), special procedures for handling a few extremely large segments in the listing process (Section 2.4.2), the selection of DUs from the segment listings (Section 2.4.3), and the field procedures used to verify and update the listing information (Section 2.4.4). Finally, Section 2.4.5 summarizes the results of the DU sampling process.

2.4.1 Listing Procedures

The purpose of listing was to create a list of DUs from which a sample could be selected for interviewing. For the sample to be representative of the population of interest, it was essential that the listing be carried out accurately and systematically, so that every DU in a designated segment was included in the list. The process of listing involved an interviewer walking or driving through every street, road, alley, and/or boundary in the segment and recording on listing forms the address and/or description of every DU within the boundaries of the selected segments (for a complete description of listing procedures, see Westat's Listing Manual).

Map Production

The maps necessary to list the 978 non-NALS segments were generated in August 1993 using the U.S. Census Bureau's map-producing database called TIGER. The TIGER (Topologically Integrated Geographic Encoding and Referencing) file is a geographic database in which all map features are digitized and stored along with attribute information. TIGER files, available on CD-ROM, can be read into various Geographic Information Systems software packages for the PC. Using this database, the software can draw a map of any specified area, at any scale and level of detail. The files include all roads and many other terrain features such as railroads and water bodies (rivers, streams, lakes, etc.). For each selected non-NALS segment, a detailed map and a "context" map were generated. Similar maps had already been produced for the NALS segments. The maps clearly showed the segment's boundaries, the streets within the boundaries, and enough "context" so that interviewers could locate the segments within the general vicinity. For the third year of the study, maps were generated for 328 non-NALS segments in 60 of the 62 CSFII/DHKS PSUs. In two of the PSUs, no new (non-NALS) segments were selected for the CSFII/DHKS 1996.

2.4.2 Use of Chunking to Reduce Listing in Large Segments

Census data indicated that some of the sampled segments were very large. To reduce the listing workload in the large segments, an additional stage of sampling was introduced. In general, these segments (defined as segments with an estimated 500 or more DUs) were divided into two or more smaller "chunks" of approximately equal size, and one chunk was selected for listing with probability proportional to estimated size. Of the 744 segments selected for the third year of the CSFII/DHKS, 58 (including NALS segments) were chunked using these procedures. Although the selected chunks were treated like all

other segments in the subsequent stages of selection, their probabilities of selection were properly adjusted to reflect the additional stage of selection.

The following procedure was used to chunk the large segments. First, the lister canvassed the segment to obtain a quick and approximate count of DUs. Using these approximate counts of DUs, the segment was divided into two or more compact chunks of approximately the same size. From these, one chunk was randomly selected for listing with probability proportional to estimated size.

2.4.3 Selection of Dwelling Units from Listed Segments

A sample of approximately 12,000 DUs[3] was selected from the 744 segments (or chunks) designated for the third year of data collection. To select the sample, the overall national sampling rate was computed as follows:

$$f = \frac{12{,}000}{\hat{N}},$$

where $\hat{N}$ is the estimated number of DUs in the United States based on the DU counts obtained during listing. Specifically, $\hat{N}$ was calculated from this formula:

$$\hat{N} = \sum_{h=1}^{62} \left(\frac{1}{P_h}\right) \sum_{j=1}^{12} \left(\frac{N_{hj}^{L}}{P_{hj}}\right), \qquad (1)$$

where P_h is the probability of selecting PSU h, N_{hj}^{L} is the number of DUs listed in segment j in PSU h, and P_{hj} is the within-PSU probability of selecting segment j in PSU h for the third year of the study.

For the NALS segments, the N_{hj}^{L}'s reflected the numbers of DUs *originally listed* for the NALS (i.e., not including any new or missed structures added through the "missed structure" or "missed DU" procedures described in Section 2.4.4). Ideally, the measures of size used for sampling should include new construction. However, the consequences of failing to do so are minor and do not result in any selection bias. As documented below, the within-segment sampling rates used to select the DUs were designed to produce a self-weighting national sample of approximately 12,000 DUs. Note that the

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[3] This was about 2,500 more than the number of DUs selected for the first year of the study and about 500 more than the number selected for the second year. Analysis of the sample yields for the first 2 years indicated that the number of the DUs to be sampled in 1996 had to be increased in order to achieve the sample size targets for certain low-income domains (see Project Memo #527 in Attachment 2.A).

procedure for selecting DUs within the NALS segments was slightly different from that used in the non-NALS segments because of the desire to avoid selecting those DUs previously selected for NALS.

Selection of Dwelling Units in Non-NALS Segments

Let N_{hj}^{L} denote the number of DUs that were listed in (non-NALS) segment j in PSU h. The N_{hj}^{L} DUs in the segment were then subsampled with equal probabilities at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{hj}}, \tag{2}$$

where P_h is the probability of selecting the PSU and P_{hj} is the conditional probability of selecting the segment within the PSU. The within-segment sampling rate, $f_{hj}^{(w)}$, given by formula (2) was designed to give each DU in the segment an overall probability of selection equal to f (i.e., $P_h P_{hj} f_{hj}^{(w)} = f$). The actual selection of DUs within a segment was accomplished by first creating a file of unique line numbers corresponding to the DUs listed in the segment, and then selecting the line numbers systematically using a random start and skip interval equal to $1/f_{hj}^{(w)}$. The systematic sampling algorithm described in Hansen, et al. (1953) was used to make the selections.[4]

Selection of Dwelling Units in NALS Segments

Let N_{hj}^{L} denote the number of DUs that were originally listed for the NALS in segment j in PSU h. For the NALS segments, the count N_{hj}^{L} does not include any structures or DUs that were added as a result of the missed structure or missed DU procedures (see Section 2.4.4). Of the N_{hj}^{L} DUs in the segment that were originally listed for the NALS, the n_{hj}^{NALS} DUs that were sampled for the NALS were identified and excluded from the sampling process. The remaining $N_{hj}^{L} - n_{hj}^{\text{NALS}}$ DUs were then subsampled at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{hj}\left(\dfrac{N_{hj}^{L} - n_{hj}^{\text{NALS}}}{N_{hj}^{L}}\right)}, \tag{3}$$

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[4] Hansen, M., Hurwitz, W., and Madow, W. (1953). *Sample Survey Methods and Theory*, Volume I (p. 343). New York: John Wiley & Sons.

where the term $(N_{hj}^{L} - n_{hj}^{NALS}) / N_{hj}^{L}$ in the denominator of formula (3) is the probability that a DU in the segment was not previously selected for the NALS.

The selection of DUs within a NALS segment was accomplished by first creating a file of unique line numbers corresponding to the DUs listed in the segment, deleting the line numbers corresponding to the DUs previously selected for NALS, and then selecting the line numbers systematically using a random start and skip interval equal to $1/f_{hj}^{(w)}$. The overall sampling rate for DUs in the NALS segments is the same as that in the non-NALS segments (i.e., $P_h P_{hj} (N_{hj}^{L} - n_{hj}^{NALS}) / N_{hj}^{L} f_{hj}^{(w)} = f$).

2.4.4 Application of Missed Structure and Missed Dwelling Unit Procedures

Two separate quality control procedures were used to check and update the listing information for all of the segments selected for the CSFII/DHKS 1996. Both of these procedures were conducted during data collection. The first of these, referred to as the missed-structure procedure, was applied whenever certain DUs in the segment were selected for the CSFII/DHKS sample. For the third year of the CSFII/DHKS, the rules for designating the missed-structure segments were different depending on whether the segment was a NALS or non-NALS segment. For the non-NALS segments, the "standard" rules used in the previous 2 years were applied; i.e., a non-NALS segment was designated for the missed-structure procedure if the first DU in the segment was selected for the sample. However, for the NALS segments, a modified rule was adopted. The modified rule was designed to take account of the possibility that large amounts of new construction could have occurred since the NALS segments were originally listed in 1991. Under the modified rule, a NALS segment was designated for the missed-structure procedure if any one of the first four DUs in the segment was selected for the CSFII. Thus, on average, the NALS segments were designated for the missed-structure procedure at four times the rate of non-NALS segments.

In those segments selected for the missed structure procedure, the interviewer prepared a list of all DUs that were not included in the original listing forms (i.e., the new or missed DUs). This information was then sent to the central office, where a subsample of the new or missed DUs was selected by computer at rates designed to yield the same overall probabilities of selection as the other DUs in the sample. Thus, in general, all of the new or missed DUs in the non-NALS segments were added to the CSFII sample. On the other hand, only 1 in 4 of the new or missed DUs in the NALS segments were added to the sample to compensate for the fact that the NALS segments had four times the chance of being selected for the missed-structure procedure. Additional details about the modified missed-structure procedures used in 1996 are given in Project Memo #501.

The second procedure, referred to as the missed DU procedure, applied to structures containing many DUs (e.g., apartment buildings) and all DUs listed at a single address. If the first DU in the given structure was selected for the CSFII/DHKS sample, then the entire structure was checked to identify DUs that may have been omitted from the listing sheets. Any missed DUs found by this process were added to the sample.

To keep the interviewing workload to manageable levels within the segment, upper limits were established for the number of missed or new DUs that would be added to the sample. With a few exceptions, these limits were 10 per segment for the missed structure procedure and 4 per structure for the missed DU procedure. Where the actual numbers of missed DUs exceeded these limits, a subsample of the new or missed DUs was retained in the sample. In the third year of the CSFII/DHKS, this additional subsampling was required for 8 of the 282 segments in which the missed structure procedure was applied. Subsampling of the missed DUs was not required for any structures in which the missed DU procedure was applied. In the third year of the study, 96 DUs were added to the sample through the missed DU procedure and 464 DUs were added through the missed structure procedure.

2.4.5 Results of the Dwelling Unit Sampling Process

As described previously, a self-weighting sample of 12,005 DUs was selected for the third year of the study. In addition, 560 DUs were added in the field as a result of the missed structure or missed DU procedure; thus, the total number of DUs selected for the third year of the study was 12,565. Of these, 12,396 (99%) completed either the full or an abbreviated Screener Questionnaire or were vacant or non-DUs (see Section 3.2 for additional details about the screening process). More than 13 percent (1,691) of the sampled DUs were vacant or non-DU structures. Of the 10,705 occupied DUs, 3,019 DUs (28%) had household members who were eligible for the survey (i.e., had eligible SPs).[5] In this report, the term "eligible SP" refers specifically to household members designated for Intake interviews by the sampling process described in Section 2.5. The results of the DU sampling for the third year of the study are summarized in Table 2-5.

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[5] In 1994, about 39 percent of the sampled households had eligible SPs. In 1995, about 33 percent had eligible SPs. The lower eligibility rate in 1996 was a result of changes that were made in the sampling messages (see Section 2.5).

Table 2-5. Results of DU sampling for the CSFII/DHKS 1996

Quarter	Number of DUs selected for sample	Number of DUs added in field	Total number of DUs in sample	Number of vacant or non-DUs	Number of occupied DUs with eligible SP	Number of occupied DUs with no eligible SPs	Number of nonresponding DUs*
1	2,965	120	3,085	457	715	1,867	46
2	3,032	160	3,192	451	832	1,881	28
3	3,040	93	3,133	405	701	1,984	43
4	2,968	187	3,155	378	771	1,954	52
Total	12,005	560	12,565	1,691	3,019	7,686	169

*Nonresponding DUs were those for which a Screener was not completed.

2.5 Selection of Sample Persons for Intake Interviews

The approach used to select persons for the Intake interviews was to designate subsets of households within which persons meeting specified sex-age-income criteria would be included in the study. For example, for a predesignated subset of households in the DU sample, only low-income males between the ages of 60 to 69 years were to be selected for the Intake interviews. In another subset of households, only low-income males between the ages of 50 to 69 years were to be included in the sample. In yet another subset of households, low-income males between the ages of 50 and 59, and females 1 to 2 years of age regardless of income status were to be included in the sample. Sampled households were assigned to the various subsets in a random fashion to ensure the unbiased selection of SPs for the study. In addition, all infants under 1 year of age in households that contained at least one SP 1 year or older were included in the sample.

To facilitate the selection of SPs in the field, each Screener Questionnaire carried a sampling message specifying the characteristics of the persons to be included in the sample. A set of 13 distinct sampling messages was developed for the first half of 1996. A different set of 17 messages was used in the second half of 1996. The proportion of households receiving a particular message was a function of the target sampling rates for the various sex-age-income domains. Section 2.5.1 discusses the derivation of the sampling rates that were used to construct the sampling messages for the third year of the study. Section 2.5.2 describes how the final set of messages was constructed and why it was necessary to modify the messages in the second half of 1996. Section 2.5.3 describes how households were classified into income classes for sampling purposes. Finally, Section 2.5.4 summarizes the results of the SP sampling process for the CSFII/DHKS 1996.

2.5.1 Derivation of Sampling Rates

As summarized in Section 2.5.4 of the *1995 Survey Operations Report*, the numbers of completed Day 1 intake interviews obtained during the first 2 years of data collection fell short of the 2-year targets for some analytic domains. To compensate for these shortfalls, the sampling rates were modified in a way that would attempt to make up for the shortfalls in the final year of the study.

Ideally, it would have been desirable to use all of the information available at the end of the first 2 years of the study to make the necessary changes for the third and final year. Unfortunately, this was not possible because of the amount of time needed to process the survey results and to prepare interviewer materials for the first quarter of the 1996 survey. In order to proceed with the preparation of materials for the third year of data collection, the sample yield results from the first three quarters of 1995, along with the complete results for 1994, were used to design the sampling rates for the third year.

Table 2-6 summarizes the current sample yields as of November 1995 (columns 1 and 2), along with the projected sample yields at the end of Year 2 (column 3). Also shown are the adjusted sample size targets for Year 3 (column 4), i.e., the numbers required to meet the 3-year CSFII sample size goals. The expected yield ratio given in column (5) of the table is the ratio of the number of completed Day 1 intake interviews to the corresponding number of DUs in which an SP in the given income-sex-age domain was assigned for sampling. The yield ratios given in the table were based on seven quarters of data for the all-income sample. However, only six quarters of data were used to calculate the yield ratios for the low-income sample because the required income data were not available for the seventh quarter. The number of DUs to be sampled in Year 3 is the adjusted target for Year 3 divided by the expected yield ratio. As can be seen in the last column of the table, the maximum number of DUs to be sampled in Year 3 was calculated to be about 12,000, which corresponds to the number of DUs required to obtain the desired sample of low-income 60- to 69-year-old males.

The numbers of DUs in the last column of Table 2-6 are proportional to the target sampling rates that were to be applied in Year 3. However, following the conventions established in earlier years, domains with similar sampling rates were collapsed for sampling purposes to reduce the number of distinct messages. In particular, the "low-income" subset for a given sex-age group was collapsed with the corresponding "all-income" group if the Year 3 sampling rate for the all-income group was greater than or equal to the rate for the corresponding low-income group. For example, in Table 2-6 it was projected that 7,256 DUs would be needed to obtain the desired number of all-income 1- to 2-year-old males, compared to only 2,238 DUs to obtain the desired number of low-income 1- to 2-year-old males. Consequently, there

Table 2-6. Current and projected sample yields, adjusted sample targets, and projected number of DUs to be sampled in Year 3

Income	Sex	Age	(1) Actual yield for Year 1	(2) Current yield for 3 quarters of Year 2	(3) Projected yield through the end of Year 2*	(4) Adjusted sample size target for Year 3	(5) Expected yield ratio†	(6) Projected number of DUs to be sampled in Year 3
All	Male	1 to 2	255	204	524	195	0.0269	7,256
		3 to 5	295	220	574	145	0.0478	3,032
		6 to 11	255	178	482	237	0.0816	2,906
		12 to 19	284	128	472	247	0.1048	2,357
		20 to 29	268	143	450	343	0.1224	2,803
		30 to 39	312	151	516	334	0.1448	2,307
		40 to 49	303	209	597	253	0.1276	1,983
		50 to 59	266	262	613	237	0.0765	3,098
		60 to 69	245	234	567	283	0.0616	4,593
		70+	255	254	618	175	0.0591	2,962
	Female	1 to 2	248	185	486	233	0.0259	8,997
		3 to 5	302	145	493	226	0.0436	5,178
		6 to 11	259	175	487	232	0.0787	2,948
		12 to 19	271	163	487	232	0.1064	2,181
		20 to 29	272	141	446	293	0.1312	2,233
		30 to 39	293	169	524	269	0.1629	1,651
		40 to 49	300	204	564	286	0.1385	2,065
		50 to 59	292	248	616	234	0.0936	2,500
		60 to 69	243	231	564	229	0.0745	3,073
		70+	241	253	581	138	0.0812	1,699
Low	Male	1 to 2	88	68	186	21	0.0094	2,238
		3 to 5	92	75	218	0	0.0165	0
		6 to 11	65	44	133	74	0.0187	3,959
		12 to 19	98	29	132	75	0.0255	2,939
		20 to 29	109	30	157	50	0.0253	1,979
		30 to 39	87	19	113	94	0.0175	5,359
		40 to 49	83	38	133	74	0.0106	6,991
		50 to 59	61	54	145	62	0.0066	9,378
		60 to 69	58	59	124	83	0.0069	11,976
		70+	60	78	160	47	0.0102	4,628
	Female	1 to 2	88	60	182	25	0.0094	2,662
		3 to 5	104	45	170	37	0.0154	2,396
		6 to 11	76	37	132	75	0.0208	3,604
		12 to 19	79	40	135	72	0.0228	3,157
		20 to 29	106	33	166	41	0.0368	1,113
		30 to 39	88	30	128	79	0.0296	2,666
		40 to 49	82	46	150	57	0.0156	3,649
		50 to 59	67	49	143	64	0.0110	5,804
		60 to 69	58	70	144	63	0.0135	4,674
		70+	66	77	168	39	0.0221	1,762

*Based on returns for seven quarters for all income; six quarters for low-income.

†Expected number of SPs completing Day 1 intake per sampled DU

was no need to supplement the sample of low-income 1- to 2-year-old males; i.e., all 1- to 2-year-old males could be sampled at the same rate. The way in which the domains were collapsed for sampling purposes is shown in column (5) of Table 2-7.

Midway through the third year of data collection, it became apparent that some further adjustment of the sampling rates would be desirable to more closely achieve the specified sample size goals. Thus, the sampling rates and corresponding messages were revised one final time. These final adjustments, which were based on projections that reflected actual sample yields through the first quarter the 1996, were implemented in the second half of 1996. The construction and configuration of the two sets of sampling messages used in 1996 are documented in the next section.

2.5.2 Construction of Sampling Messages and Allocation to Households

The procedures used to construct the sampling messages for 1996 were analogous to those described previously (e.g., see Section 2.5.2 of the *1995 Survey Operations Report*). For example, to derive the messages for the first half of 1996, let r_i denote the sampling rate for the ith income-sex-age group given in column (7) of Table 2-7. Note that the values of r_i in Table 2-7 are proportional to the projected number of DUs given in column (6). This set of 13 "final" rates was then used to construct the required messages for the first half of 1996 by "accumulating" the subsets identified by the first three columns of Table 2-7. That is, starting with the first row in Table 2-7, message 1 was defined to include low-income males between 60-69 years of age. Message 2 was obtained by adding to the persons covered by message 1, low-income males between 50-59 years of age. Message 3 was obtained by adding to the persons covered by messages 1 and 2, all females between 1-2 years of age; and so on up to message 13.

Table 2-8 summarizes the 13 sampling messages developed for the first half of 1996. The proportion of DUs assigned to message i (i = 1, 2, ..., 13) is shown in the last column of this table and was calculated from the formula

$$\text{prop}_i = \frac{(r_i - r_{i+1})}{r_1}$$

where r_i is the final sampling rate corresponding to message number i r_{i+1} is the final sampling rate for the following row of Table 2-7 (where $r_{14} = 0$ by definition), and r_1 is the largest of the 13 final sampling rates. The sampled DUs within each PSU were then randomly assigned to the various messages in the

Table 2-7. Projected sample sizes for Year 3 based on returns for seven quarters, by income, sex, and age domain

Income	Sex	Age	(1) Total yield through 7 quarters of study	(2) Projected yield through the end of Year 2*	(3) Three year sample size target	(4) Adjusted sample size target for Year 3	(5) Collapsed group for sampling	(6) Projected number of DUs to be sampled in Year 3	(7) Final projected sampling rate (r_i)†
Low	Male	60 to 69	117	124	207	83	1	12,000	0.1166
Low	Male	50 to 59	115	145	207	62	2	9,378	0.0911
All	Female	1 to 2	433	486	719	233	3	8,997	0.0874
Low	Female	1 to 2	148	182	207	25	3	8,997	0.0874
All	Male	1 to 2	459	524	719	195	4	7,256	0.0705
Low	Male	1 to 2	156	186	207	21	4	7,256	0.0705
Low	Male	40 to 49	121	133	207	74	4	7,256	0.0705
Low	Female	50 to 59	116	143	207	64	5	5,804	0.0564
Low	Male	30 to 39	106	113	207	94	6	5,359	0.0521
All	Female	3 to 5	447	493	719	226	6	5,359	0.0521
Low	Female	3 to 5	149	170	207	37	6	5,359	0.0521
Low	Female	60 to 69	128	144	207	63	7	4,674	0.0454
Low	Male	70+	138	160	207	47	7	4,674	0.0454
All	Male	60 to 69	479	567	850	283	7	4,674	0.0454
Low	Male	6 to 11	109	133	207	74	8	3,959	0.0385
Low	Female	40 to 49	128	150	207	57	8	3,959	0.0385
Low	Female	6 to 11	113	132	207	75	8	3,959	0.0385
Low	Female	12 to 19	119	135	207	72	9	3,157	0.0307
All	Male	50 to 59	528	613	850	237	9	3,157	0.0307
All	Female	60 to 69	474	564	793	229	9	3,157	0.0307
All	Male	3 to 5	515	574	719	145	9	3,157	0.0307
Low	Male	3 to 5	167	218	207	0	9	3,157	0.0307
All	Male	70+	509	618	793	175	9	3,157	0.0307
All	Female	6 to 11	434	487	719	232	9	3,157	0.0307
Low	Male	12 to 19	127	132	207	75	9	3,157	0.0307
All	Male	6 to 11	433	482	719	237	9	3,157	0.0307
All	Male	20 to 29	411	450	793	343	10	2,803	0.0272
Low	Male	20 to 29	139	157	207	50	10	2,803	0.0272
Low	Female	30 to 39	118	128	207	79	10	2,803	0.0272
All	Female	50 to 59	540	616	850	234	11	2,500	0.0243
All	Male	12 to 19	412	472	719	247	11	2,500	0.0243
All	Male	30 to 39	463	516	850	334	11	2,500	0.0243
All	Female	20 to 29	413	446	739	293	11	2,500	0.0243
Low	Female	20 to 29	139	166	207	41	11	2,500	0.0243
All	Female	12 to 19	434	487	719	232	12	2,181	0.0212
All	Female	40 to 49	504	564	850	286	12	2,181	0.0212
All	Male	40 to 49	512	597	850	253	12	2,181	0.0212
Low	Female	70+	143	168	207	39	12	2,181	0.0212
All	Female	70+	494	581	719	138	13	1,699	0.0165
All	Female	30 to 39	462	524	793	269	13	1,699	0.0165

*Based on returns for 7 quarters for all income; 6 quarters for low-income.

†Computed as n/N, where n is the projected sample size in column (6) and N is the estimated number of DUs in the U.S., expressed in units of 0.001.

Table 2-8. Sampling messages specified for the first two quarters of the CSFII/DHKS 1996

Message number	Characteristics of persons to be included in sample (age groups)				Proportion of sample households to which message was assigned
	All income males	Low-income males	All income females	Low-income females	
1		60 to 69			0.218529
2		50 to 69			0.031754
3		50 to 69	1 to 2		0.145068
4	1 to 2	40 to 69	1 to 2		0.120992
5	1 to 2	40 to 69	1 to 2	50 to 59	0.037079
6	1 to 2	30 to 69	1 to 5	50 to 59	0.057039
7	1 to 2, 60 to 69	30 to 59, 70+	1 to 5	50 to 69	0.059592
8	1 to 2, 60 to 69	6 to 11, 30 to 59, 70 +	1 to 5	6 to 11, 40 to 69	0.066845
9	1 to 11, 50+	12 to 19, 30 to 49	1 to 11, 60 to 69	12 to 19, 40 to 59	0.029498
10	1 to 11, 20 to 29, 50+	12 to 19, 30 to 49	1 to 11, 60 to 69	12 to 19, 30 to 59	0.025271
11	1 to 39, 50+	40 to 49	1 to 11, 20 to 29, 50 to 69	12 to 19, 30 to 49	0.026582
12	1+		1 to 29, 40 to 69	30 to 39, 70+	0.040166
13	1+		1+		0.141585

proportions given in Table 2-8 by (1) computing $N_{DU}prop_i$ (rounded to the nearest integer) for each message i = 1, 2, ..., 13, where N_{DU} is the number of sampled DUs in the given PSU, and (2) randomly assigning the required number of DUs in the PSU to message i.

Finally, as mentioned in the previous section, the 13 messages initially developed for 1996 were modified to better meet the specified sample size goals for some sex-age domains. This was accomplished by recomputing the required sampling rates to reflect actual returns through the first quarter of 1996, and then reworking the sampling messages using these revised rates. The resulting messages, which were introduced in the second half of 1996, are shown in Table 2-9.

Table 2-9. Sampling messages specified for the last two quarters of the CSFII/DHKS 1996

Message number	Characteristics of persons to be included in sample (age groups)				Proportion of sample households to which message was assigned
	All income males	Low-income males	All income females	Low-income females	
1		50 to 59			0.234154
2		50 to 69			0.027715
3		50 to 69	1 to 2	50 to 59	0.052821
4	1 to 2	50 to 69	1 to 2	50 to 59	0.125764
5	1 to 2	30 to 39, 50 to 69	1 to 2	40 to 59	0.098727
6	1 to 2	6 to 11, 30 to 39, 50 to 69	1 to 5	40 to 59	0.093975
7	1 to 2, 60 to 69	6 to 11, 30 to 59	1 to 5	40 to 59	0.031410
8	1 to 2, 60 to 69	6 to 11, 30 to 59	1 to 5, 60 to 69	40 to 59	0.017732
9	1 to 2, 60+	6 to 11, 30 to 59	1 to 5, 60 to 69	40 to 59	0.034296
10	1 to 5, 60+	6 to 11, 30 to 59	1 to 5, 60 to 69	12 to 19, 40 to 59	0.021142
11	1 to 5, 20 to 29, 60+	6 to 11, 30 to 59	1 to 5, 60 to 69	12 to 19, 30 to 59	0.022081
12	1 to 5, 20 to 29, 50+	6 to 11, 30 to 49	1 to 5, 20 to 29, 60 to 69	12 to 19, 30 to 59	0.012156
13	1 to 5, 12 to 29, 50+	6 to 11, 30 to 49	1 to 5, 20 to 29, 60 to 69	12 to 19, 30 to 59	0.032670
14	1 to 5, 12 to 39, 50+	6 to 11, 40 to 49	1 to 5, 12 to 29, 50 to 69	30 to 49	0.015448
15	1 to 5, 12 to 39, 50+	6 to 11, 40 to 49	1 to 5, 12 to 29, 40 to 69	6 to 11, 30 to 39	0.027412
16	1+	—	1 to 29, 40 to 69	30 to 39	0.020623
17	1+	—	1+	—	0.131874

2.5.3 Classification of Households to Income Classes

Under the procedures adopted for the CSFII/DHKS, the Screener question on income status (Q S14) was asked only when necessary during screening because of the belief that asking about income during the initial contact with the household might increase nonresponse to the survey. Therefore, if the sampling message indicated that income information was unnecessary for sampling, the question was not asked. For example, in the first half of 1996, message 13 indicated that all persons (1 year of age or older) in these households were to be included in the sample regardless of income level. Similarly, if a household was assigned message 3 ("select females 1 to 2 years of age and low-income males 50 to 69 years of age"), but the household did not include males 50 to 69 years of age, the sampling of SPs could proceed without collecting income data in the Screener. In all such cases, the income information was obtained from the more detailed Household Questionnaire, using an identically worded question (Q H47a).

Occasionally, the interviewers were unable to obtain the income information necessary to select SPs for the Intake interviews. In such cases, a rule based on the composition of the household was used to assign the household to one of the income groups for sampling purposes. The rule used was the following: If the household contained one or more children under 6 years of age, but no males 18 years of age or over, the household was treated as low income for sampling purposes. Otherwise, the household was treated as non-low income. This rule was expected to be reasonably effective in identifying low-income households because more than 60 percent of children under 6 years of age in households headed by a female with related children under 6 years and no spouse present are living below Federal poverty guidelines.[6]

It should be noted that the above rule was adopted simply to facilitate the sampling of SPs in the field. Some households that were classified as low income by this rule may have turned out to be non-low income, and vice versa. For base weighting purposes, such households were weighted according to their income status as determined by the sampling rule, and not their actual income status based on Q H47a of the Household Questionnaire (see Section 5.1). However, for the purpose of determining sample yields, the response to either Q S14 of the Screener Questionnaire or Q H47a of the Household Questionnaire was generally used to establish income status.

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[6] Current Population Reports, Poverty in the United States: 1990, Series P-60, No. 175.

Tables 2-10A and 2-10B summarize the distribution of the sampled households by income level (as reported in either the Screener or Household Questionnaire) and sampling message, separately for the first and second halves of 1996, respectively. The results are shown separately for the two periods because the sampling messages used to select SPs were revised in the middle of 1996. Of the 1,547 households in the first half of 1996 that were found to have eligible SPs, 153 were classified as low income (below 130% of Federal poverty guidelines) by Q S14 of the Screener Questionnaire, and 196 were classified as low income by Q H47a of the Household Questionnaire. Similarly, of the 1,472 households in the second half of 1996 that were found to have eligible SPs, 170 were classified as low-income by Q S14 of the Screener Questionnaire, and 170 were classified as low-income by Q H47a of the Household Questionnaire. Thus, for the entire survey year, 689 households were classified as low-income and 1,908 were classified as non-low-income according to the response to either Q S14 of the Screener Questionnaire or Q H47a of the Household Questionnaire.

Of the remaining 422 households that did not provide responses to either Q S14 or Q H47a, 369 did not complete the Household Questionnaire and 53 completed the Household Questionnaire but refused to answer Q H47a. The latter 53 cases account for approximately 2 percent of the 2,597 households that completed the Household Questionnaire. In total, 57 households contained at least one SP who completed the Day 1 Intake interview (this includes SPs in households that did not complete the household questionnaire). In order to classify SPs in these 57 households by income level, the "five-step imputation" rule summarized in Table 2-11 was applied. The rules in Table 2-11 were used solely for the purpose of determining sample yields (e.g., those summarized in Section 2.5.4). As mentioned at the beginning of this section and later in Section 5.1.6, a different set of rules based on household composition was used for sampling and weighting purposes.

Table 2-12 summarizes the application of the five rules for each year of the CSFII/DHKS. Note that, unless specifically stated otherwise, "low-income" SPs include those SPs in households that were imputed as low-income by any of the five rules defined in Table 2-11.

2.5.4 Results of SP Sampling Process

Tables 2-13A through 2-15 summarize the results of the SP sampling process for the CSFII/DHKS 1996. The classification of cases in Tables 2-14 and 2-15 into income classes was based on either Q S14 of the Screener Questionnaire or Q H47a of the Household Questionnaire (or the imputation rules), as described in Section 2.5.3.

Table 2-10A. Distribution of sampled households by sampling source of income data and income level* and sampling message for the first half of 1996

Sampling message	(1) Number of occupied households with eligible SPs	A. Income required for selection of SPs						B. Income not required for selection of SPs			
		C. Reported in screener S14		D. Assigned in screener based on rule							
		(2) Low-income based on screener (S14 = 2)	(3) Non-low-income based on screener (S14 = 1)	(4) Low-income based on household questionnaire (H47a = 2)	(5) Non-low-income based on household questionnaire (H47a = 1)	(6A) Income not reported in either screener or household quest., HH disp = H01†	(6B) Income not reported in either screener or household quest., HH disp ≠ H01†	(7) Low-income based on household questionnaire (H47a = 2)	(8) Non-low-income based on household questionnaire (H47a = 1)	(9A) Income not reported in either screener or household quest., HH disp = H01†	(9B) Income not reported in either screener or household quest., HH disp ≠ H01†
1	9	9	0	0	0	0	0	0	0	0	0
2	1	1	0	0	0	0	0	0	0	0	0
3	28	7	1	0	0	0	0	8	10	0	2
4	54	16	6	0	0	0	0	9	21	1	1
5	12	4	1	0	0	0	0	1	6	0	0
6	38	15	15	0	0	1	0	4	2	0	1
7	70	20	28	0	0	1	1	9	9	1	1
8	92	25	48	0	0	1	4	5	7	0	2
9	88	13	38	0	0	0	3	8	20	2	4
10	84	11	28	0	1	0	2	7	27	0	8
11	124	12	35	0	2	1	5	12	44	3	10
12	216	20	49	0	0	0	4	25	93	1	24
13	731	0	0	0	0	0	0	108	477	15	131
Total	1,547	153	249	0	3	4	19	196	716	23	184

* Low-income households are those with incomes below 130 percent of Federal poverty guidelines as reported in either the Screener or Household Questionnaires. Households with incomes greater than or equal to 130 percent of Federal poverty guidelines are considered to be non-low-income.

† Refers to Household Questionnaire disposition code. A code of H01 refers to a "completed Household Questionnaire." All other codes are nonrespondents.

Table 2-10B. Distribution of sampled households by sampling source of income data and income level* and sampling message for the second half of 1996

Sampling message	(1) Number of occupied households with eligible SPs	A. Income required for selection of SPs						B. Income not required for selection of SPs			
		C. Reported in screener S14		D. Assigned in screener based on rule							
		(2) Low-income based on screener (S14 = 2)	(3) Non-low-income based on screener (S14 = 1)	(4) Low-income based on household questionnaire (H47a = 2)	(5) Non-low-income based on household questionnaire (H47a = 1)	(6A) Income not reported in either screener or household quest., HH disp = H01†	(6B) Income not reported in either screener or household quest., HH disp ≠ H01†	(7) Low-income based on household questionnaire (H47a = 2)	(8) Non-low-income based on household questionnaire (H47a = 1)	(9A) Income not reported in either screener or household quest., HH disp = H01†	(9B) Income not reported in either screener or household quest., HH disp ≠ H01†
1	11	11	0	0	0	0	0	0	0	0	0
2	4	4	0	0	0	0	0	0	0	0	0
3	17	5	0	0	0	0	0	1	6	1	4
4	36	10	1	0	0	0	0	8	15	1	1
5	49	21	16	0	0	0	0	4	7	0	1
6	73	31	25	0	0	0	1	5	11	0	0
7	34	9	14	0	0	1	1	3	5	0	1
8	26	4	11	0	0	0	0	4	6	1	0
9	57	12	10	0	0	1	1	11	15	3	4
10	43	12	10	0	0	0	2	4	12	0	3
11	47	10	18	0	0	0	1	2	15	0	1
12	35	4	17	0	0	1	1	2	7	0	3
13	115	12	59	1	0	3	2	7	22	0	9
14	66	9	23	0	0	0	0	4	23	1	6
15	126	10	38	0	1	0	5	14	43	1	14
16	102	6	16	0	0	0	0	13	54	0	13
17	631	0	0	0	0	0	0	87	440	12	92
Total	1,472	170	258	1	1	6	14	169	681	20	152

* Low-income households are those with incomes below 130 percent of Federal poverty guidelines as reported in either the Screener or Household Questionnaires. Households with incomes greater than or equal to 130 percent of Federal poverty guidelines are considered to be non-low-income.

† Refers to Household Questionnaire disposition code. A code of H01 refers to a "completed Household Questionnaire." All other codes are nonrespondents.

Table 2-11. Income-status imputation rules used for sample yield determination

Imputation rule	Definition
Rule 1	Household Questionnaire items H52 and H53 are two versions of the total household income question. H52 asks for the total dollar amount, and H53 asks for an income range. By design, only one of these two items is answered, if at all. If H52 and H53 were not both missing, the responses to these items, together with the household size, was used to assign the household to either the low-income or non-low-income group. Since the endpoints of the income categories defined by H53 do not coincide with the poverty cutoffs used to define low-income households, the midpoint of the category was used for determining the low-income households. In other words, if the midpoint of the reported income category was less than the specified poverty cutoff, the household was considered to be low-income.
Rule 2	Household Questionnaire items H57a-H57f ask for monthly income amounts by source. If all applicable amounts are present, total monthly income can be calculated. In this case, the calculated amount, along with the household size, was used to assign households to the appropriate income group, if rule 1 could not be applied.
Rule 3	Household Questionnaire item H58 uses a hand card to ask whether last month's income was above or below the 130 percent cutoff based on household size. The response to this item was used directly to assign households to the appropriate income group, if the previous two rules could not be applied.
Rule 4	Household Questionnaire item H59 asks about food stamp use. If H59 = 1 (yes), the household was assigned to the low-income group. If H59 = 2 (no), the household was assigned to the non-low-income group. This rule was used only if none of the previous three rules could be applied.
Rule 5	Finally, if none of the above four rules could be applied, the "sampling rule," based on household composition, was used. Under the sampling rule, households with one or more children under 6 years of age and no males 18 years or older were treated as low-income. All others were treated as non-low-income.

Table 2-12. Results of income imputation by survey year and imputation rule

Income imputation rule	1994			1995			1996		
	Number of households for which income was imputed*	Imputed as low-income	Imputed as non-low-income	Number of households for which income was imputed*	Imputed as low-income	Imputed as non-low-income	Number of households for which income was imputed*	Imputed as low-income	Imputed as non-low-income
1	44	9	35	22	11	11	13	6	7
2	2	2	0	11	7	4	6	3	3
3	5	0	5	7	3	4	3	1	2
4	36	0	36	29	2	27	23	3	20
5	18	0	18	13	0	13	12	0	12
Total	105	11	94	82	23	59	57	13	44

*Households in which an SP completed the Day 1 Intake interview.

Table 2-13A. Number of DUs and SPs selected for the first half of the CSFII/DHKS 1996 and number of SPs completing the Intake interviews, by sampling message

Sampling message (see Table 2-8)	(1) Total number of sample DUs	(2) Number of vacant or non- DUs*	(3) Number of households with at least one SP†	(4) Number of households with no SPs**	(5) Number of SPs in households with SPs	(6) Average number of SPs per household with an SP	(7) Proportion of occupied households with eligible SPs	(8) Number of SPs completing a Day 1 Intake interview	(9) Number of SPs completing both days of Intake interviews
1	1,340	181	9	1,143	9	1.00	0.0078	9	8
2	209	29	1	179	1	1.00	0.0056	1	1
3	923	129	28	763	33	1.18	0.0354	27	25
4	773	105	54	611	70	1.30	0.0812	64	61
5	223	32	12	176	14	1.17	0.0638	14	14
6	338	46	38	254	51	1.34	0.1301	48	48
7	355	53	70	229	91	1.30	0.2341	83	77
8	396	74	92	228	121	1.32	0.2875	98	96
9	202	29	88	81	153	1.74	0.5207	123	120
10	150	20	84	44	161	1.92	0.6563	141	135
11	188	33	124	26	295	2.38	0.8267	240	224
12	275	37	216	14	525	2.43	0.9391	427	408
13	905	140	731	0	1,753	2.40	1.0000	1,348	1,277
Total	**6,277**	**908**	**1,547**	**3,748**	**3,277**	**2.12**	**0.2922**	**2,623**	**2,494**

* Screener disposition code of S07.

† An SP is a person having the characteristics specified in the sampling message. Households with at least one SP have screener status codes of S01, S02, o S03.

** Screener disposition codes of S04, S05, S06.

Table 2-13B. Number of DUs and SPs selected for the second half of the CSFII/DHKS 1996 and number of SPs completing the Intake interviews, by sampling message

Sampling message (see Table 2-9)	(1) Total number of sample DUs	(2) Number of vacant or non- DUs*	(3) Number of households with at least one SP†	(4) Number of households with no SPs**	(5) Number of SPs in households with SPs	(6) Average number of SPs per household with an SP	(7) Proportion of occupied households with eligible SPs	(8) Number of SPs completing a Day 1 Intake interview	(9) Number of SPs completing both days of Intake interviews
1	1,470	159	11	1,297	11	1.00	0.0084	11	11
2	174	15	4	155	4	1.00	0.0252	4	4
3	335	39	17	278	18	1.06	0.0576	13	13
4	778	90	36	650	47	1.31	0.0525	45	44
5	627	79	49	498	63	1.29	0.0896	53	49
6	589	65	73	449	105	1.44	0.1398	97	87
7	209	39	34	136	45	1.32	0.2000	38	37
8	109	5	26	76	34	1.31	0.2549	32	31
9	214	25	57	130	85	1.49	0.3048	72	68
10	132	20	43	68	68	1.58	0.3874	58	57
11	140	13	47	76	76	1.62	0.3821	70	68
12	75	7	35	30	56	1.60	0.5385	41	39
13	202	24	115	60	213	1.85	0.6571	167	156
14	97	15	66	13	131	1.98	0.8354	114	112
15	176	27	126	16	290	2.30	0.8873	221	213
16	132	19	102	6	245	2.40	0.9444	190	181
17	829	142	631	0	1,618	2.56	1.0000	1,339	1,257
Total	**6,288**	**783**	**1,472**	**3,938**	**3,109**	**2.11**	**0.2721**	**2,565**	**2,427**

* Screener disposition code of S07.

† An SP is a person having the characteristics specified in the sampling message. Households with at least one SP have screener status codes of S01, S02, o S03.

** Screener disposition codes of S04, S05, S06.

Table 2-14. Number of SPs eligible for the Intake interviews in 1996, and number completing one or both days of Intake interviews by income, sex, and age*

Sex/age†	Low-income households			All households		
	Number of eligible SPs in low-income households	Number of SPs completing Day 1 Intake interview	Number of SPs completing Day 1 and Day 2 Intake interview	Number of eligible SPs in all income households	Number of SPs completing Day 1 Intake interview	Number of SPs completing Day 1 and Day 2 Intake interview
Males						
less than 1	26	23	21	78	69	64
1 to 2	74	71	65	228	207	198
3 to 5	52	49	49	192	169	163
6 to 11	97	90	84	304	264	251
12 to 19	76	73	66	300	254	238
20 to 29	87	78	74	405	307	288
30 to 39	100	82	70	486	372	338
40 to 49	65	54	52	355	274	260
50 to 59	72	60	56	341	268	251
60 to 69	74	68	63	357	286	276
70+	46	43	38	247	196	186
Females						
less than 1	19	18	15	60	53	49
1 to 2	72	68	60	238	213	204
3 to 5	83	77	68	274	238	228
6 to 11	77	74	69	272	233	220
12 to 19	91	83	76	304	253	240
20 to 29	95	87	83	389	282	266
30 to 39	85	78	75	339	277	265
40 to 49	83	78	74	416	336	323
50 to 59	64	56	53	298	244	233
60 to 69	65	58	53	308	245	236
70+	60	57	52	193	148	144
Total excluding children less than 1 year old	1,518	1,384	1,280	6,246	5,066	4,808
Total	1,563	1,425	1,316	6,384	5,188	4,921

*Counts exclude SPs who were selected for the study but became ineligible before completing the Day 1 Intake (SPs with disposition code of F30).

†Classification by income, sex, and age reflects imputed values. See Sections 2.5.3 and 5.1.5.

Table 2-15. Cumulative number of SPs completing the Day 1 Intake interview for all 3 years of the CSFII/DHKS, and corresponding sample size target by income, sex, and age*

Sex/age†	Low-income households			All households		
	Number of eligible SPs in low-income households	Number of SPs completing Day 1 Intake	CSFII target for 1994-96	Number of eligible SPs in all-income households	Number of SPs completing Day 1 Intake	CSFII target for 1994-96
Males						
less than 1	69	61	NA	213	187	NA
1 to 2	252	245	207	803	725	719
3 to 5	257	238	207	850	734	719
6 to 11	225	215	207	867	751	719
12 to 19	233	218	207	881	734	719
20 to 29	262	229	207	1,017	779	793
30 to 39	243	201	207	1,157	890	850
40 to 49	237	195	207	1,138	861	850
50 to 59	231	204	207	1,186	888	850
60 to 69	223	202	207	1,092	846	850
70+	221	206	207	993	790	793
Females						
less than 1	79	73	NA	222	195	NA
1 to 2	246	237	207	794	707	719
3 to 5	250	238	207	834	735	719
6 to 11	220	214	207	841	734	719
12 to 19	234	216	207	876	732	719
20 to 29	256	236	207	960	726	739
30 to 39	221	207	207	963	809	793
40 to 49	247	226	207	1,142	903	850
50 to 59	202	188	207	1,071	864	850
60 to 69	224	209	207	1,001	790	793
70+	243	230	207	917	723	719
Total excluding children less than 1 year old	*4,727*	*4,354*		*19,383*	*15,721*	
Total	**4,875**	**4,488**		**19,818**	**16,103**	

*Counts exclude SPs who were selected for the study but became ineligible before completing the Day 1 Intake (SPs with disposition code of F30).

† Classification by income, sex, and age reflects imputed values. See Sections 2.5.3 and 5.1.5.

Tables 2-13A and 2-13B summarize the number of sample DUs, the number of vacant or non-DUs, the number of households with and without eligible SPs, the number of SPs in households with SPs, and the average numbers of SPs per household with an SP, by sampling message separately for the two halves of 1996. These tables contain important sampling-related information used to monitor the sampling process. In particular, it should be noted that with the two sets of sampling messages used in 1996, 28 percent of the occupied households had an eligible SP, and within these households, an average of slightly more than two SPs were sampled per household. Finally, the numbers of SPs completing the Intake interviews are shown in columns (8) and (9) of these tables.

Table 2-14 summarizes the number of SPs who were eligible for the Intake interviews in 1996 and the corresponding number who completed 1 or 2 days of Intake interviews by income group, sex, and age. Table 2-15 shows the cumulative number of SPs who completed 1 day of Intake interviews over the 3 years of the study and the corresponding CSFII sample size "target." As can be seen in Table 2-15, the sample size goals were met or exceeded for 14 of the 20 "all-income" sex-age domains. For all of the remaining six sex-age domains, at least 98 percent of the CSFII goals were achieved. Among the low-income domains, the sample size goals were met or exceeded for 14 of the 20 sex-age domains. For four of the remaining six sex-age domains, at least 96 percent of the CSFII target was achieved. The two low-income domains with the greatest shortfalls were (1) females 50-59 (about 9% short of the CSFII goal), and (2) males 40-49 (about 6% short of the CSFII goal).

2.6 Selection of SPs for the Diet and Health Knowledge Survey

SPs who were 20 years of age or older *and* who had completed the Day 1 Intake interview without the assistance of a proxy (disposition codes of F01 or F03) were also eligible for the DHKS. SPs were selected for the DHKS in the field using a specially designed sampling program in each interviewer's laptop computer. If there were two or more eligible respondents in the household, the sampling program randomly selected one for the DHKS. Approximately one-half of the households that contained SPs who were eligible for the DHKS had more than one eligible SP. Table 2-16 summarizes the numbers of SPs selected for and responding to the DHKS, by income group and the number of eligible SPs in the household.

Table 2-16. Number of SPs selected for and completing the DHKS, by income group and number of eligible SPs in household

Income group	Number of eligible SPs in household (persons completing Day 1 Intake)*	Number of SPs completing Day 1 Intake*	Number of SPs selected for DHKS	Number of SPs completing DHKS
Low income	1	384	384	346
	2	320	160	144
	3	30	10	8
	4 or more	37	9	9
	Total low-income	771	563	507
All income	1	1,119	1,119	1,013
	2	1,734	867	812
	3	228	76	69
	4 or more	112	24	26
	Total all income	3,193	2,089†	1,920

*Persons 20 years or older who completed the Day 1 Intake without the assistance of a proxy (disposition codes of F01 or F03).

† Includes one SP who became ineligible before completing the DHKS (disposition code of D30).

Unlike the Intake interviews, there were no specific numerical sample size targets for the DHKS. However, there was the requirement that the distribution of DHKS respondents be "similar" to that of the corresponding Intake respondents by sex, age, and income. Although it was recognized that restricting the DHKS sample to only one respondent per household might distort the distribution of DHKS respondents somewhat, the random sampling procedures used to select DHKS respondents were reasonably effective in meeting the study goals. As Table 2-17 shows, the distribution of SPs selected for the DHKS and the corresponding distribution of DHKS respondents are generally comparable to the distributions of SPs completing the Day 1 Intake interview. The distributions shown in Table 2-17 are different, however, from the corresponding distributions obtained in 1995. In particular, the proportion of older persons (60 years or older) who completed the DHKS in 1996 was less than in 1995. The reason for the difference is that the sampling messages employed in 1995 gave households with older persons increased chances of selection to compensate for expected shortfalls in 1994 (see Section 2.5.1). As a direct result of the sampling method used to select a DHKS respondent, the DHKS respondents in 1996 tended to be younger than those selected in 1995.

Table 2-17. Number of SPs completing Day 1 Intake and number completing the DHKS in 1996, by sex, age, and income

Sex and age group	Income group	SPs completing Day 1 Intake*		SPs selected for DHKS		SPs completing DHKS	
		Number	Percentage	Number	Percentage	Number	Percentage
Male	Low-income						
20-39 years		160	20	94	17	82	16
40-59 years		114	14	85	15	79	15
60+ years		111	14	89	16	75	15
Female							
20-39 years		165	21	109	19	96	19
40-59 years		134	17	103	18	98	19
60+ years		115	14	89	16	82	16
Total		**799**	**100**	**569**	**100**	**512**	**100**
Male	All income						
20-39 years		679	21	416	20	369	19
40-59 years		542	17	340	16	319	17
60+ years		482	15	346	17	320	17
Female							
20-39 years		559	17	343	16	310	16
40-59 years		580	18	361	17	338	18
60+ years		393	12	282	14	264	14
Total		**3,235**	**100**	**2,088†**	**100**	**1,920**	**100**

* Intake disposition codes of F01, F02, or F03.

† Excludes one SP who became ineligible before completing the DHKS (disposition code of D30).

2.7 Issues in Sampling Implementation

In general, the sampling procedures developed for the CSFII/DHKS 1996 worked reasonably well. It is worth noting two areas, however, that required some adjustment in the second and third years of data collection. The first was the increase in the initial sample of DUs from 9,500 in 1994 to 11,500 in 1995 and finally to 12,000 in 1996. The sample size of 9,500 DUs was based on analysis of Current Population Survey (CPS) data on the distribution of persons within households in the United States.* That analysis suggested that a sample of 9,500 DUs would be sufficient to meet the sample size goals for 1994. It turned out that the sample yields in 1994 for some low-income domains were less than anticipated. In order to make up for these shortfalls, we estimated that it would be necessary to increase the sample of DUs to about 11,500 for each of the 2 remaining years of data collection. Subsequent analysis suggested that 12,000 would be needed in 1996. In addition, the number and structure of the sampling messages were revised to better meet the adjusted sample size goals for 1996 (see Section 2.5.1).

By necessity, the development of the sampling rates (and, hence, structure of the sampling messages) for 1996 was based on results from seven of the eight quarters of 1994-95. As more returns from 1995 became available, it became apparent that the projected yields for some domains were overly optimistic. As a result, the sampling rates derived for 1996 were lower than they would have been if data from all four quarters of 1995 were available for the sample design analysis. To make up for potential shortfalls, the sampling messages introduced at the beginning 1996 were further modified in the latter half of the year.

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* As discussed in Section 2.7 of the 1994 SOR, it was originally estimated that 11,000 DUs would be needed for each year. The original projection of 11,000 DUs was based on rough initial assumptions about the distribution of SPs within households in the United States. These distributions were subsequently updated using more current CPS information which suggested that a smaller sample of 9,500 DUs would be sufficient for the CSFII/DHKS 1994. However, it turned out that larger screening samples were needed in 1995-96 to obtain the required low-income samples.

3. DATA COLLECTION

3.1 Introduction

Following the second year of data collection, Westat worked in close collaboration with the Agricultural Research Service, United States Department of Agriculture (ARS, USDA), to make a small number of refinements to the survey materials for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) 1996. Refinements were made to the CSFII/DHKS 1995 Questionnaires and Food Instruction Booklet (FIB).[1]

Five regional supervisors, five senior interviewers, and a total of 93 interviewers (6 of whom are bilingual) were trained to conduct the CSFII/DHKS 1996.

The data collection period for the CSFII/DHKS 1996 extended over 13 months beginning on January 4, 1996. During this time period, 10,705 occupied households were screened; 2,597 Household Questionnaires were completed; 5,188 Day 1 and 4,921 Day 2 Intake interviews were administered in person; and 1,920 DHKS Questionnaires were conducted, primarily over the telephone. Interviewing activities (including the time spent contacting sampled households, administering the questionnaires, traveling to and from respondents' homes, editing completed work, and reporting to the supervisors) required about 64,600 interviewer hours.

The following sections describe the questionnaires, questionnaire aids, training activities, and quality control and management of the data collection for the CSFII/DHKS 1996.

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[1] The "public-friendly" name of the survey is "What We Eat in America 1994-1996." This name appears on all survey questionnaires, interviewer materials, and respondent letters.

3.2 Data Collection Materials

3.2.1 Questionnaires

The design of the CSFII/DHKS required that interviewers administer the questionnaires described below to households or eligible sample persons (SPs).

- A **Screener Questionnaire** was to be administered to identify eligible SPs in the sampled households.
- Two 24-hour food intake interviews (the **Day 1 and Day 2 Intakes**) were to be completed with each SP; the contract required that the Day 2 Intake be administered between 3 and 10 days after the Day 1 Intake and on a different day of the week.
- The **Household Questionnaire** collected socioeconomic data and was to be administered in person to a knowledgeable household respondent 18 years or older, not necessarily an SP.
- The **DHKS Questionnaire** was to be completed with a selected SP 20 years of age or older who had completed a Day 1 Intake without the assistance of a proxy. The DHKS was to be completed 2 to 3 weeks after the second Intake interview.

Table 3-1 shows the average time to administer each questionnaire. The times are consistent with those negotiated with ARS at the start of the contract.

Table 3-1. Average questionnaire administration time

Questionnaire type	Average administration time (minutes)*
Screener	6.8
Household Questionnaire	18.6
Day 1 Intake	29.9
Day 2 Intake	27.3
DHKS	28.4

* Includes interviews conducted in person and over the telephone.

The Day 2 Intake was completed over the telephone with 369 (7%) respondents. The average administration time for these telephone Intake interviews was 24.5 minutes. A total of 278 (14%) DHKS interviews were conducted in person. The average administration time for an in-person DHKS interview was 33.9 minutes.

The data collection instruments are described in greater detail in the following paragraphs. The instruments are included as Attachment 3.A.

Screener Questionnaire

The Screener Questionnaire contained 19 questions. It was designed to collect information about the household that allowed the interviewer to follow the sampling procedures to determine if the household was eligible for the survey and to select the SPs to be interviewed. To accomplish this objective, the Screener contained the elements described below:

- An initial verification of the address of the sampled DU;
- A household enumeration that obtained age, date of birth, sex, race, and ethnicity, and relationship to a reference person for each usual resident of the DU;
- A question for determining if household income was above or below a specified level (for the purpose of determining poverty status), which was used when income data were required to sample SPs; and
- A computer-generated sampling message specifying the characteristics of the persons selected to be SPs.

The Screener also included instructions for conducting the missed dwelling unit (DU) procedure (see Section 2.4.4) and a listing sheet for recording the addresses of new DUs.

Household Questionnaire

The Household Questionnaire contained 65 questions, including detailed household income questions as well as questions on food shopping practices; employment status; participation in Government food programs such as the school lunch program, WIC, and the Food Stamp Program; source of food; and food sufficiency.

Day 1 and Day 2 Intake Questionnaires

The Day 1 and Day 2 Intake Questionnaires contained 41 and 17 questions, respectively. The questionnaires elicited a report of all foods and beverages the SP had consumed between midnight and midnight the day before the interview. The SP was first asked to enumerate all food and drink consumed, without any probing and with as little interruption as possible by the interviewer. Then the interviewer probed for the time of day and the eating occasion for each food item, obtained a complete description that would permit the food to be coded so that nutrient values could be determined, and asked the SP to estimate the quantity consumed. A review of all reported foods was then conducted to allow the SP to remember and report additional foods that might have been forgotten. In concluding the questions on foods eaten, the interviewer asked where each food had been obtained, whether it had been eaten at home, and, if not, whether it was ever at home. The final series of questions in the interview were health-related questions, such as the SP's exercise habits, prior and current cigarette-smoking behavior, food allergies, and height and weight.

Measuring guides were used to assist the SP in recalling food quantities. These guides included stainless steel measuring cups and spoons, laminated cards that illustrate fish and chicken parts and concentric circles, a 12-inch ruler, a set of thickness sticks, and a plastic 2-cup liquid measuring cup.

Diet and Health Knowledge Survey Questionnaire

The DHKS Questionnaire collected information about the SP's attitudes, knowledge, and behaviors concerning diet and health issues. The 42 questions addressed such topics as the importance of dietary guidance, awareness of diet-health relationships, food labeling, and behavior related to fat intake and food safety.

3.2.2 Questionnaire Aids

Several documents and materials were used in conjunction with the questionnaires. These are described below.

- **Food Instruction Booklet (FIB).** The FIB was used by the interviewer during the Intake interview and contained a series of standardized probes specific to the various foods that the SP might report. The probes were designed to elicit the detailed description and quantity information needed to code the data with the desired level of information, and were therefore very important to the quality of the Intake data collected. The FIB also contained recording conventions, standard abbreviations, an index for locating foods, and instructions for using the measurement aids when estimating food quantities.

- **Measuring Guides.** Measuring guides were used in conducting the Intake interviews to help SPs estimate the quantities of the foods and beverages consumed. Included were laminated cards that illustrate fish and chicken parts and circles that help the SP quantify the size of a pancake, for example. Also included were a set of four stainless steel measuring cups and four measuring spoons; eight 1/8"-thick sticks for estimating the thickness of meat, poultry, and cheese; a ruler for reporting dimensions in inches; and a pint cup for measuring liquids.

- **Handcards.** These cards list response options and were shown to respondents when asking sensitive questions such as income or a question with a long list of response categories.

- **Household and DHKS Folders.** The Folders contained DU identification information and the interviewer's records of all attempts to complete the interviews associated with the DU. Additionally, the Household Folder contained space to record the results of telephone calls to collect Intake data not available at the time of interview.

- **Non-interview Report Form.** This form documented the reason for each instance of nonresponse. The form also provided a mechanism for interviewers to record information that might have facilitated the completion of the case during a subsequent contact. For the DHKS, this form was incorporated into the DHKS Folder.

- **DHKS Postcard.** A colorful DHKS postcard was developed to serve two purposes: (1) to remind the SP of the interview appointment and (2) to provide the SP with the response categories required to answer many of the questions so the interviewer did not have to repeat them.

3.2.3 Refinements to the CSFII/DHKS 1995 Questionnaires and Aids

The review of completed CSFII/DHKS 1995 questionnaires, taped interviews, and field observations provided information for identifying areas of improvement to the 1995 instruments and aids. The refinements were primarily cosmetic and were designed to reduce interviewer error. The year 1996 was displayed on the covers of all questionnaires. Other changes are described below.

- **Screener Questionnaire.** The phrase "....or a student living in a dormitory, fraternity, or sorority?" was added to question 7 to increase the likelihood that no one living away from home temporarily was excluded from the enumeration. The reference to "last year" in question 14 was changed to "1995." The interviewer instructions for determining the eligibility of sample persons using neighbor information were expanded.

- **Household Questionnaire.** The skip instruction at question 40 was corrected. All income questions referring to last year were revised to read 1995.

- **Day 1 Intake Questionnaire.** There were no revisions to the Day 1 Intake Questionnaire.

- **Day 2 Intake Questionnaire.** There were no revisions to the Day 2 Intake Questionnaire.

- **DHKS Questionnaire.** The introduction to the questionnaire was modified slightly to capture the correct age of the respondent.

Minor changes were also made to some of the questionnaire aids. These are described below.

- **Food Instruction Booklet (FIB).** The bracketing section of the General Instructions was expanded to provide a more detailed explanation of bracketing procedures and examples. A number of probes were added or clarified to collect more precise information in the following major categories: Beverages, Milk, Cream; Cheese, Eggs, Yogurt; Desserts, Ice Cream, Frozen Yogurt; Fruits, Vegetables; Meat, Poultry, Fish, Shellfish; Pizza, Tacos, Frozen Meals; Mixed Dishes, Macaroni and Cheese, Spaghetti with Sauce; Sandwiches; Sauces, Gravies; Snacks; and Spreads, Salad Dressing, Oil. The index was expanded to include Chow Mein noodles, molasses, red potatoes, Tater Tots, and tofu. (See Attachment 3.B.)

- **Handcards.** The income handcards were modified to reflect the 1996 poverty guidelines. All other handcards were unchanged.

3.2.4 Introductory Materials

The likelihood of respondent cooperation is increased if the legitimacy and importance of the survey are established in the respondent's eyes. Therefore, in advance of the Pilot Study, ARS and Westat made considerable effort to develop a set of promotional materials that would convince respondents of the survey's legitimacy and importance. Appearance, content, and wording were all important considerations. ARS and Westat agreed that a "public-friendly" survey name, "What We Eat in America 1994-1996," would appear on all materials. The materials developed for the Pilot Study continued to work well for all 3 years of the Main Survey.

The introductory materials included a Westat toll-free telephone number so that SPs could call if they desired more information. For each call received on the hotline, information was recorded and passed along, via E-mail, to the regional supervisor and the interviewer assigned to the case. A total of 199 calls were received during the CSFII/DHKS 1996. Of these callers, 3 percent wanted to verify the legitimacy of the study; 15 percent requested additional information about the study; 36 percent wanted to set an appointment, reschedule an appointment, or contact a particular interviewer; and 46 percent were calling for other reasons but generally expressed an unwillingness to participate in the survey.

The interviewer assigned to the case and his or her supervisor were contacted via E-mail when a respondent called in to set an appointment. The message included information on respondent availability and a request that the interviewer contact the respondent to arrange for an interview. The message was tagged with a "Receipt Request" and a telephone call was placed to the interviewer if the request was not returned in a timely fashion.

When a respondent called in and expressed an unwillingness to participate, the field director tried to convert the refusal by identifying the underlying reason for the resistance and providing additional information about the survey and the data uses. If the respondent did not agree to participate, the field director and the supervisor considered the case a final refusal or attempted another refusal conversion strategy.

The materials that the interviewers used to explain the survey to the respondents, establish their legitimacy, and respond to their questions are described below.

- **Introductory Letter.** The letter briefly described the survey, its importance, and the authority for collecting the data and pledged strict adherence to protect respondent confidentiality. The letter was printed on USDA letterhead and signed by the ARS Contract Officer's Representative. The letter was mailed early enough to arrive in advance of the interviewer's initial visit.

- **Brochure.** The brochure had as its basic goals the promotion and legitimization of the survey. The brochure and introductory letter were mailed together. This colorful brochure attempted to answer questions respondents frequently ask about surveys.

- **Nonresponse Conversion Letters.** A basic conversion letter for respondents who could not be contacted, were too busy to participate, or were not interested in participating provided additional information about the survey and stressed the importance of participation. A letter addressed to elderly respondents and women living alone suggested that they might be more comfortable if a friend or relative was with them at the time of interview. Managers of limited-access buildings and communities were encouraged to provide access to sampled DUs so that the residents of sampled units would have an opportunity to participate. All of the letters were printed on Westat letterhead, signed by the field director, and included a Westat toll-free telephone number. The letter often included the name of the interviewer assigned to the case. Letters were requested by the regional supervisor and sent from the home office.

- **Flyers.** The flyers provided a brief overview of the survey and made a visual statement with colorful graphics. One flyer was targeted to adults and the other to teenagers. The flyers were used at the interviewer's discretion during refusal conversion or with reluctant respondents. The appropriate flyer was also included with each nonresponse conversion letter sent from the home office.

- **Handbook.** A loose-leaf handbook was developed for use by interviewers if they thought it would help in gaining SP cooperation. The handbook was intended to show the uses of the survey by including newspaper and periodical articles describing the findings of previous food consumption surveys and related topics. Endorsement letters were also included in the handbook. In January 1996, ARS prepared and disseminated a press release about the CSFII/DHKS 1994 data. The release was targeted to media in the food, nutrition, and health sector. A more general interest release focusing on the diets of children followed in April 1996. A copy of the more general release was photocopied on card stock and mailed to the interviewers for insertion in the handbooks. Westat contracted with Burrelle's Press Clipping Service to scan for articles about the survey. During the month of February, Burrelle's clipped 132 items that mentioned CSFII/DHKS. Throughout the year, interviewers clipped and forwarded to Westat additional articles that mentioned the survey. Photocopies of articles were sent to interviewers for the handbook. Additionally, photocopies were included in followup mailings to reluctant respondents.

- **Tote Bag.** Each interviewer received a large heavy-canvas tote bag with sturdy webbed handle-straps for carrying supplies into the field. The tote bag was imprinted with the survey logo, an additional visual cue legitimizing the survey.

- **Photo Identification Badge.** Interviewers were instructed to wear the laminated photo identification badges issued by Westat when collecting data for the CSFII/DHKS. Because the identification badge was illustrated and had been described in the advance materials, wearing the badge on an outer garment assured the respondent of the interviewer's credibility.

3.2.5 Spanish Language Questionnaires and Materials

All survey materials administered to or shared with primarily Spanish-speaking respondents were translated into Spanish and printed. These materials included the introductory letter, the survey brochure, the flyers, the questionnaires, the hand cards, and the DHKS postcard. Translated documents standardized materials used in approaching and interviewing primarily Spanish-speaking respondents.

All materials were translated by a native Spanish-speaking Westat employee and back-translated by an independent contractor whose first language was Spanish and who had professional experience as a translator for Government agencies. To check the accuracy and utility of the translation, the back-translator received a copy of the materials translated into Spanish and translated them "blinded" into English. The translator checked the original English against the back-translated English for changes in meaning. When questions arose, the translator and the back-translator consulted to find the most accurate translation.

3.3 Field Staff Training

3.3.1 Lister Training

In August 1995, regional supervisors assigned 47 field staff, all of whom had previous listing experience, to list the segments selected for the CSFII/DHKS 1996. (See Section 2.4.1 for a description of listing procedures.) Of these, 36 were CSFII/DHKS interviewers. The rest were Westat experienced listers working in PSUs where the CSFII/DHKS interviewers were not trained listers. All listers were

trained through a home study program that included a review of the listing manual, written exercises, and a 50-minute videotape. The home study package consisted of three sections:

1. Presentation of the definitions and instructions used for listing (this section served as a reference manual during listing);
2. Review and practice exercises; and
3. A final review test covering all material presented.

After completing the exercises and the final test, the interviewers mailed them to their supervisors for review. Upon successful completion of home study, listing assignments were shipped to the lister. Listers were required to submit their first two completed segments to their supervisors for review. Nine listers were also observed in the field by either a supervisor or an experienced lister.

3.3.2 Project-Specific Training

3.3.2.1 Training Materials

To thoroughly prepare field staff for their responsibilities, Westat developed two reference documents. ARS staff provided materials to be incorporated into these documents, and they reviewed and commented on them. The documents were the following:

- **Supervisor/Senior Interviewer Manual.** This document, used exclusively by field supervisors and senior interviewers, covered supervisory responsibilities, including setting up a regional office, case assignment and reassignment to interviewers, monitoring field progress and response rates, reporting to the home office, quality control of interviewers' work, and using the production and cost reports to monitor work.

- **Interviewer Manual.** This document contained two distinct sections:

  Part 1: Field Procedures. This section contained background information on the survey and study-specific data collection procedures. Included were requirements for contacting respondents and answering their questions, administering the questionnaires, selecting SPs, and scheduling interviews.

  Part 2: Question-by-Question Specifications. This section contained detailed examples, explanations, and definitions for each question in the questionnaires.

Westat developed a Trainer's Guide that included all lecture scripts, role plays, and written exercises involved in training. Trainers were required to use the Trainer's Guide to ensure standardization of the materials presented to interviewers.

Westat also developed an Interviewer's Guide to the Field Management System (FMS). (See Section 3.4.2.2 for a more detailed description of the FMS.) This manual provided information about the computer and its use and detailed instructions for entering and transmitting data to the home office.

3.3.2.2 Supervisor/Senior Interviewer Training

The five regional supervisors and five senior interviewers had all been trained on CSFII/DHKS in 1994 or 1995.

3.3.2.3 Interviewer Training

Eighty-two of the interviewers working on CSFII/DHKS 1996 received 7 days of in-person training before conducting the 1996 Survey. In January 1996, these interviewers and the senior interviewers received 1 day of in-person training on the refinements to the questionnaires and materials for the third year of the survey. (The Interviewer Refresher Training Agenda is included as Attachment 3C.) During 1996, 11 additional field interviewers were trained for CSFII/DHKS 1996 at an in-person attrition training held in Rockville, MD. The training guide was updated to reflect changes to the 1996 questionnaires, but otherwise the training program followed the agenda and materials developed for the CSFII/DHKS 1994 and 1995. The attrition session was led by home office staff. All 11 interviewers were new to Westat and were trained on Westat's general interviewing procedures in a 5-hour session held the day before the project-specific training. (The Interviewer Training Agenda is included as Attachment 3.D.)

Westat's basic approach to training is to maximize trainee involvement and participation and to provide ample opportunity for supervisory staff to observe and evaluate trainee performance. Interviewers received close attention and were given extensive hands-on experience with the questionnaires, the FIB, and the food measuring guides. Samples of numerous food packages were displayed, and demonstrations of measuring techniques were given so that trainees could familiarize themselves with food labels, package sizes, and various shapes and sizes of glasses, cups, and bowls. Training scripts and

exercises were designed to provide situations that the interviewers were likely to encounter and to build in complexity. The following techniques were used to train the interviewers on all survey questionnaires.

- **Home Study.** All trainees were required to study the field procedures section of the Interviewer Manual and the FIB before attending training. Interviewers were required to complete exercises based on this material and bring them to training for supervisory review and feedback.

- **Demonstration Interview.** Two members of the training staff demonstrated a Day 1 Intake interview using measuring guides, the FIB, and "real" food products. This technique was used to provide trainees with a general sense of the flow of an Intake interview.

- **Interactive Lectures.** The basic concepts of the questionnaires were taught through interactive lectures. The trainees were led through the questionnaires and called on to act the role of the interviewer while the trainer played the respondent. The trainer stopped frequently to explain a question more fully or to make a particular point about a question or its administration.

- **Mock Interviews.** Trainees were also exposed to increasingly more complex material as the training progressed. These sessions gave trainees more hands-on practice and allowed trainers to closely monitor interviewer performance. During these sessions, trainees actually used food labels, packages, and measuring guides and measured quantities using glasses, cups, and bowls.

- **Role Plays.** The trainers arranged trainees in pairs, taking into consideration the strengths and weaknesses of the interviewers. Within each pair, one trainee took the role of the interviewer while the other played the SP, using prepared scripts. They then reversed roles. Training staff observed the pairs, correcting the interviewers if needed.

- **Paid Respondents.** During training, each trainee had the opportunity to interview respondents who were brought into the training session. This allowed them to practice in an unscripted situation and provided a more realistic experience of what they would encounter with "real" respondents. The trainees were arranged in groups of four, and each group conducted four Intake interviews. The first two interviews were with an adult and a 6- to- 11-year-old child being assisted by the adult, and the last two were with an adult and then with the same adult acting as a proxy for a child under 6 years old. Each trainee interviewed a respondent while the others observed and recorded the responses. Training staff observed the interviews and provided feedback to the trainees at the completion of the session.

- **Food Displays.** A variety of food items and types of packaging were set out on a table in each training room. These products were used throughout the training to provide the trainees with realistic practice with actual food packages.

- **Exercises.** Written exercises were used to reinforce the learning of particular concepts or to give the trainees an opportunity to practice on their own (e.g., editing the Intake Questionnaire or selecting SPs).

- **Training Review.** ARS and Westat staff met regularly during the training to discuss the training presentations and the problems interviewers were having and to resolve any issues that arose during the day's sessions. On the last day of training, Westat staff reviewed decisions made by ARS and Westat during training, answered any remaining questions, and provided a final review of particularly complex concepts or procedures. ARS presented information about the uses of the survey data.

After returning home, interviewers were required to complete a practice interview with a neighbor or family member and a scripted mock interview by telephone with their supervisor. After supervisory review of the practice interview and successful completion of the mock interview, supervisors authorized the interviewers to begin work on their assignments.

3.3.2.4 Periodic Training Quizzes

Periodic quizzes were developed by the field director and administered by supervisors over the telephone to the interviewers (see Attachment 3.E). The quizzes were used to assess the interviewer's understanding of complex areas of the questionnaires that were sources of common interviewer error. The supervisor provided retraining on the questions that the interviewer had handled incorrectly in the quiz. The supervisors graded the quizzes and reported the grades to the field director.

The two quizzes administered during 1996 focused on completing the Household Folder and locating foods in the Food Instruction Booklet.

3.4 Conduct of the Fieldwork

3.4.1 Field Organization

The 62 primary sampling units (PSUs) were divided into five geographic regions: Northeast, Mid-Atlantic and South, Midwest, Southwest, and West Coast. Each of the five supervisors was responsible for one region consisting of about 12 PSUs and 17 interviewers. Supervisors assigned work to their interviewers and monitored production, costs, and the quality of work. Each supervisor worked with a

senior interviewer, who was available to travel to all PSUs in the region to convert nonresponse cases and observe the interviewers at work. In addition to a traveling assignment, each senior interviewer had a small interviewing assignment in her home PSU.

Based on the workload in a PSU, 36 PSUs were staffed with one interviewer and 26 PSUs were staffed with two or more interviewers. Six of the interviewers were bilingual in English and Spanish.

3.4.1.1 Recruiting Field Staff

Westat employs its field staff of supervisors and interviewers directly and does not use field services. The five regional supervisors assigned to the CSFII/DHKS 1996 had extensive supervisory experience with Westat. All worked on the CSFII/DHKS 1994 and CSFII/DHKS 1995 and two of the five supervisors had worked on the CSFII/DHKS Pilot Study, one as a supervisor and the other as an interviewer.

The primary resource for recruiting interviewers is Westat's own files of approximately 4,000 persons who have worked on one of its field studies in the past 3 years. Extensive computer and manual records are maintained on every person who has held or applied for a position on Westat's field staff. In recruiting for the CSFII/DHKS 1996, this was the first source consulted for interviewers. Supervisors received lists of candidates that contained information about relevant interviewing experience. If unable to find a suitable candidate from the Westat list of interviewers, supervisors also used their own contacts with other survey organizations. In 1996, recruiting was conducted in eight PSUs. In five PSUs, supervisors were able to hire replacement interviewers from these sources. In three PSUs, it was necessary to place advertisements in the local newspapers and interview candidates.

In accordance with requirements set forth in the Statement of Work, the following criteria were considered in selecting staff for the CSFII/DHKS 1996:

- Interviewing experience;
- An ability to work with the public;
- Basic reading and math skills;
- Experience in buying, planning, and preparing food;

- Basic knowledge of food measurement and preparation; and
- Experience on surveys requiring households to participate in multiple interviews.

The characteristics of the 93 interviewers and 5 senior interviewers who conducted the CSFII/DHKS 1996 are shown in Table 3-2. The staff consisted of 86 women and 12 men. Seventy percent of the interviewers had more than 5 years of interviewing experience. Additionally, 88 percent had some college education or had obtained an advanced degree.

Table 3-2. Interviewer characteristics*

Characteristics	Female (n=86)	Male (n=12)	Total (n=98)
Age (years)			
20-29	3	0	3
30-39	8	0	8
40-49	24	4	28
50-59	26	4	30
60-64	10	3	13
65-74	15	1	16
Survey experience (years)			
< 1	3	0	3
1-5	25	1	26
6-10	26	9	35
11-15	8	1	9
16-20	10	1	11
> 21	14	0	14
Education			
High school graduate	10	2	12
Some college	32	0	32
Associate's degree	6	2	8
Bachelor's degree	30	6	36
Master's degree	8	2	10

* Includes characteristics of five senior interviewers.

3.4.1.2 Interviewer Attrition

During the year, 8 of the 98 interviewers resigned for personal reasons, 5 were released for poor performance, and 2 died. Thus, 15 (15%) of the 98 interviewers trained for the CSFII/DHKS 1996 terminated their employment. This percentage is lower than Westat's experience on other long-term surveys.

3.4.2 Management

3.4.2.1 Reporting Structure

Every interviewer had a weekly telephone conference with his or her supervisor to report on the work completed during the week and on plans for completing his or her assignment. The supervisor used the Field Management System (FMS) reports (the FMS is described in Section 3.4.2.2) to discuss interviewer productivity, costs, and data quality.

Following the weekly conferences with their interviewers, the supervisors reported to Westat's field director in the home office. These telephone conferences between the supervisors and the field director were focused on resolving issues of interviewer performance and assignments, response rates, and data quality. Supervisors also had to report on their progress in completing quality control procedures.

3.4.2.2 Field Management System (FMS)

Westat developed the FMS to enable the field supervisory and project management staff to maintain close control over the data collection effort. Field interviewers received laptop computers with modems that held the system software for the FMS. Each supervisor was also given a laptop computer with the FMS software and relevant case assignment information for her region. Interviewers entered status codes and information about each sampled DU and SP, as well as time and expense information. Once a week, interviewers transmitted their data to the home office, which in turn transmitted relevant data to the field supervisors.

Weekly reports were generated and used by supervisors and the home office to monitor production, response rates, and costs associated with the data collection. Specialized reports were also produced that allowed supervisors to monitor whether survey procedures were being followed. For example, reports were generated to show the percentage of Day 1 Intake interviews completed on each day of the week, because a goal of the study was to have an even distribution of interviews across the days of the week. Reports were also generated to show whether the Day 2 interview was being conducted 3 to 10 days after the Day 1 interview, as required by the survey procedures. These reports were provided at the interviewer and PSU level for the supervisors and for each PSU and supervisory region for the home office.

3.4.3 Data Collection Procedures

3.4.3.1 Introduction

The data collection procedures for the CSFII/DHKS 1996 were numerous and complex. Adhering to all procedures while still achieving the response rates specified in the contract was a delicate balance that required close attention to the field work and careful judgment about when and how corrective action should be taken. Westat and ARS staff worked together on decisions concerning the appropriate action needed to meet the procedural requirements. The data collection procedures are summarized in Exhibit 3-1 and described in this section of the report.

3.4.3.2 Contact Protocol

The interviewer's first task was to conduct a screening interview with each sampled DU. The objective of the screening effort was to select a specified number of low-income and non-low-income males and females of selected age groups, in accordance with the sample design requirements.[2] Interviewers were instructed to administer the Screener Questionnaire in person with a household member 18 years of age or older.

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[2] The contract requires that the sample be drawn in such a way that, within each of the 3 years of data collection, the distribution of SPs approximates the overall distribution of the population across sex-age groups. It further specifies that each sample stratum and PSU must be sampled in every quarter of the year. Therefore, within the 62 PSUs, the 36 segments selected for the 3 survey years were divided into 12 sets of 3 segments each, and a set of 3 segments per PSU was assigned for fieldwork for each of the 12 quarters of the 3-year survey period.

After multiple unsuccessful attempts to complete the Screener with the sampled DU, the interviewer attempted to collect only limited age and sex information from a household member 18 years of age or older. Based on the information provided, the interviewer followed the SP selection instructions in the Screener. If SPs were selected, the interviewer attempted to contact the SPs to complete the Screener and the necessary interviews. This procedure was used to complete 692, or 6 percent, of the Screeners.

Exhibit 3-1. Summary of data collection procedures

	Respondent	Mode of Administration	Contact Rules
Screener	HH member 18 years or older	In-Person	Contact on one of specified Day 1 Intake interview days, if possible.
Household Questionnaire	Main food preparer or meal planner for the HH or another adult knowledgeable about household characteristics, especially income. Does not have to be an SP.	In-Person	Attempt to complete on same day as Screener and Day 1 Intake interview. Setting up an appointment is permissible only if HHQ respondent is not an SP or is an SP and has completed both Intake interviews or is an SP and has not completed the Day 1 Intake AND NO OTHER SP in the household has completed an Intake.
Day 1 Intake Questionnaire	SP or Adult Proxy: ▪ Child SP under 6 ▪ In combination with child SP 6-11 ▪ Mentally or physically impaired	In-Person	Conduct on 1 of 3 days specified on the assignment label. Appointment is permissible if no Day 1 Intakes are completed in the HH. An appointment can be made with one, some, or all SPs in the HH if the appointment is for the same date and time. Only one appointment/visit is allowed per HH and it must be to administer the first Day 1 Intake(s) in the HH. No additional appointments are permitted.
Day 2 Intake Questionnaire	SP or adult proxy as detailed above.	In-Person. In a small number of cases by telephone only if approved by Supervisor in advance.	Conduct 3-10 days after Day 1 interview and on a different day of the week. No appointments permissible.
DHKS	SP 20 years of age or older who has completed Day 1 interview. Selected by FMS.	Telephone. In-person for special situations approved in advance by Supervisor.	Conduct 2-3 weeks after the Day 2 interview. Schedule an appointment after conducting the Day 2 interview.

When interviewers were unable to obtain screening information from the sampled DU, they followed procedures for approaching neighbors to collect information about the household members living at the selected address. Specifically, after the second unsuccessful attempt to obtain screening information from the sampled DU, the interviewer approached a "neighbor" (who could be someone living next door, a postman, an apartment manager, a storekeeper, or anyone who was likely to know something about the household composition) to obtain the age and sex of the residents of the sampled DU. After a third unsuccessful attempt, the interviewer contacted a second neighbor and confirmed the information obtained from the first informant. After a fourth unsuccessful contact attempt, the case was finalized as having been completed with neighbor information. Based on the information provided by the neighbor, the interviewer followed the SP selection instructions in the Screener. If SPs were selected, the interviewer continued his or her efforts to contact the sampled household to complete the Screener and the necessary interviews.

If SPs were selected as a result of the screening interview, the Household Questionnaire was usually the next instrument administered. The interviewers had discretion, however, to complete the Intake interviews before administering the Household Questionnaire. Interviewers might exercise this option for a number of reasons: (1) a qualified Household Questionnaire respondent was unavailable; (2) the SP did not have time to complete both the Household Questionnaire and the Day 1 Intake and the interviewer chose to administer the Day 1 Intake first and the Household Questionnaire in a subsequent visit, or (3) the interviewer thought that the income questions in the Household Questionnaire might result in a refusal to the Intake interviews. The respondent to the Household Questionnaire did not have to be an SP. The preferred respondent was the main food preparer or planner for the household. When that person was unavailable, another household member who was knowledgeable about the household, particularly about household income information, was asked to respond.

Day 1 Intake interviews were to be conducted in person. Whenever possible, the interviewers conducted the first Day 1 Intake interview in a household with the SP who was the main meal preparer. This procedure was developed because the main preparer is best able to describe the ingredients used in dishes prepared at home. His or her report could then be used as a reference for the home-prepared foods eaten by other SPs. A knowledgeable adult in the household was also asked to complete the Intake interview for all SPs under 6 years of age and to assist SPs 6 to 11 years of age in reporting food and beverages consumed. SPs 12 years of age and older reported for themselves. Proxy reporting was required to complete 44 Day 1 Intake interviews (0.8%) and 41 Day 2 interviews (0.8%) because the SP had a physical or mental handicap that interfered with the ability to self-report. Examples of SPs requiring proxy

interviews include terminally ill patients and stroke victims. Interviewers were allowed to make up to three in-person visits to obtain a Day 1 Intake interview and could make additional visits if authorized by the supervisor. Although the supervisor could authorize that Intake interviews be conducted by telephone if necessary, only four CSFII/DHKS 1996 Day 1 Intakes were conducted by telephone.

The Day 2 Intake interview was conducted with SPs who had completed a Day 1 Intake interview. The interview was also to be conducted in person. If in-person administration was impossible, the supervisor was permitted to approve a small number of telephone interviews. A total of 369, or 7 percent, of the Day 2 Intake interviews were conducted by telephone. Of these, 168 interviews were approved because the Day 1 Intake had been completed by a traveling and/or bilingual interviewer who was no longer in the PSU at the time of the Day 2 interview. Another 135 interviews were completed by telephone because the SP was unavailable or refused to be interviewed in person. Table 3-3 shows the reasons supervisors approved telephone interviews.

Table 3-3. Day 2 Intake Questionnaires completed by telephone

Reason for telephone interview	N	%
No local interviewer in PSU	142	38.5
Only way respondent could/would participate	135	36.6
Nonresponse conversion	66	17.9
Conducted in Spanish, no bilingual interviewers in PSU	26	7.0
Total	369	100.0

A respondent to the DHKS Questionnaire was selected in each household with one or more SPs 20 years of age or older who had completed a Day 1 Intake interview.[3] The survey procedures specified that the DHKS interviews were to be conducted by telephone 2 to 3 weeks after the Day 2 Intake. In households without telephones, or if the selected SP was incapable of responding to the questionnaire over the telephone, the DHKS was to be conducted in person. A total of 278(14.5%) of the DHKS interviews were completed in person. Table 3-4 shows the frequency of in-person DHKS interviews and the reasons that the questionnaire was administered in person.

[3] A Day 1 Intake was completed by a proxy for 44 SPs. Adult respondents requiring a proxy included persons who were mentally handicapped or ill. These SPs were not eligible for DHKS selection.

Table 3-4. DHKS interviews completed in person

Reason for in-person interview	N	%
No telephone	109	39.2
Respondent's physical limitations (hard of hearing, feeble, etc.)	67	24.1
Refusal to participate in telephone interview	31	11.2
Language other than Spanish or English and translator required	18	6.4
Nonresponse conversion	53	19.1
Total	278	100.0

3.4.3.3 Scheduling Protocol

Procedures for scheduling the Day 1 Intakes were established to meet two requirements:

1. Day 1 Intake interviews were to be completed evenly across the year by quarter; and
2. At least 10 percent of the Day 1 Intake interviews were to be conducted on each day of the week.

To meet the first requirement in each PSU, all DUs within a segment were randomly assigned to be completed within a given quarter of the year. This resulted in the assignment of three segments to each quarter of the year. This strategy was extremely successful in 1996. Day 1 Intake interviews were generally evenly distributed throughout the year, with 22.3 percent of the total Day 1 interviews completed in Quarter 1, 28.3 percent in Quarter 2, 23.6 percent in Quarter 3, and 25.8 percent in Quarter 4. Only two Day 1 Intake interviews were conducted in January 1996. Between 1 and 4 percent of the SPs did not complete their Day 1 interviews in their assigned quarter and went into the next quarter. This occurred primarily because the Screener was completed late in the quarter and the SPs could not be interviewed immediately. Table 3-5 shows the number of completed Intake interviews by month of the year. The pattern shows that the largest percentage of Intake interviews were completed in the months immediately following the release of a new quarter's assignments to interviewers (assignments were released on January 4, April 11, July 4, and September 3) and the percentage decreased in each succeeding month of the quarter as only the more hard-to-reach cases remained.

Table 3-5. Day 1 Intake interviews completed by month

	N	%
January 1996	301	5.8
February	430	8.3
March	326	6.3
April	455	8.8
May	545	10.5
June	490	9.4
July	537	10.4
August	561	10.8
September	375	7.2
October	678	13.1
November	381	7.3
December	107	2.1
January 1997	2	<0.1
Total CSFII/DHKS 1996	5,188	100.0

To ensure that at least 10 percent of the interviews were completed on each day of the week, Westat developed procedures for assigning each DU a 3-day "window" during which the Day 1 Intake could be conducted (e.g., Monday/Wednesday/Sunday or Thursday/Friday/Saturday). Two patterns were assigned in each segment, allowing the interviewer to work in the segment most days of the week. The FMS captured the days on which the Day 1 Intakes were completed and produced reports summarizing this information. The supervisors and project managers were able to monitor the spread of interviews and to take remedial action if a shortfall was identified on any day of the week.

Table 3-6 shows that the requirement was met for every day of the week. Remedial action was occasionally necessary to ensure that 10 percent of the Day 1 Intake interviews were completed on Friday. Although there was no contractual requirement to complete 10 percent of the Day 2 Intake interviews across the 7 days of the week, Table 3-7 illustrates that the Day 2 interviews were also fairly evenly spread across the week, although fewer than 10 percent of the Day 2 interviews were completed on Sunday.

Table 3-6. Number of completed Day 1 Intake interviews, by day of the week, by quarter, and in total

	Day of the week															
	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Quarter 1	206	17.8	173	15.0	120	10.4	182	15.8	138	11.9	128	11.1	208	18.0	1,155	100
Quarter 2	176	12.0	237	16.1	250	17.0	208	14.2	177	12.1	174	11.9	246	16.8	1,468	100
Quarter 3	171	13.9	189	15.4	176	14.3	140	11.4	183	14.9	170	13.8	199	16.2	1,228	100
Quarter 4	201	15.0	211	15.8	182	13.6	184	13.8	145	10.8	158	11.8	256	19.1	1,337	100
Total	754	14.5	810	15.6	728	14.0	714	13.8	643	12.4	630	12.1	909	17.5	5,188	100

Table 3-7. Number of completed Day 2 Intake interviews, by day of the week, by quarter, and in total

	Day of the week															
	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Quarter 1	114	10.4	223	20.4	193	17.6	184	16.8	149	13.6	109	10.0	123	11.2	1,095	100
Quarter 2	107	7.6	255	18.2	277	19.8	219	15.7	226	16.2	177	12.7	138	9.9	1,399	100
Quarter 3	94	8.1	178	15.3	201	17.3	226	19.4	168	14.4	164	14.1	132	11.3	1,163	100
Quarter 4	74	5.9	244	19.3	250	19.8	258	20.4	147	11.6	174	13.8	117	9.3	1,264	100
Total	389	7.9	900	18.3	921	18.7	887	18.0	690	14.0	624	12.7	510	10.4	4,921	100

Another scheduling requirement was that interviewers were only permitted to make appointments for the first Day 1 Intake(s) conducted with SPs in a household. If additional SPs had to be interviewed from that same household, the interviewer could not schedule any appointments. The reason behind this rule was the belief that SPs' eating behavior might be influenced if they knew they would have to report their food intake. The same logic applies for the Day 2 interviews; therefore, interviewers could not schedule appointments for their Day 2 interviews. Obviously, these restrictions made it more difficult for interviewers to find SPs at home to be interviewed.

Another scheduling protocol required that the Day 2 Intake be conducted within 3 to 10 days of the Day 1 Intake, and 80.8 percent of the Day 2 Intake interviews met this survey requirement. Table 3-8 shows the frequency of Day 2 Intakes that were not completed within the 3- to 10-day window and the reason for that occurrence. Of the 1,018 mistimed Day 2 interviews, 91.9 percent were conducted more than 10 days after the Day 1 Intake. Of these, 59.9 percent were mistimed because respondents were unavailable within the specified time period, a factor over which the interviewers had little control. Also, ARS preferred that Day 2 Intakes be mistimed rather than conducted over the telephone. Data not presented in Table 3-8 indicate that, of the Day 2 Intakes completed after 10 days, approximately one-third were conducted within 14 days of the Day 1 Intake and 79.5 percent were conducted within 30 days of the Day 1 Intake.

The Day 2 Intake was also to be completed on a different day of the week than the Day 1 Intake. Table 3-8 also shows that 2.0 percent of the Day 2 interviews were conducted on the same day of the week as the Day 1 interview. Therefore, 98.0 percent of Day 2 interviews were conducted in accordance with this scheduling requirement.

Interviewers were instructed to set up an appointment to conduct the DHKS interview by telephone within 2 to 3 weeks after the completion of the Day 2 Intake interview in the household (or final nonresponse to the Day 2 Intake), as required by the scheduling protocol. The timing of the DHKS interview was intended to lower respondent burden and to increase the independence between the Intake interviews and the DHKS. Three to five days before the scheduled appointment, the interviewer mailed the SP a reminder card that listed the appointment day and time or hand delivered the card if he or she was at the DU conducting an interview with another SP. Approximately 74 percent of the DHKS interviews met this requirement. Table 3-9 shows the timing of the DHKS interview in relation to the conduct of the Day 2 Intake interview. Of the 505 DHKS interviews that were not conducted within the prescribed

Table 3-8. Mistimed Day 2 Intake interviews

Reason	Conducted less than 3 days after the Day 1 Intake		Conducted more than 10 days after the Day 1 Intake				Conducted on the same day of the week as the Day 1 Intake, exactly 1 week later		Total mistimed	
			Conducted on a different day of the week than the Day 1 Intake		Conducted on the same day of the week as the Day 1 Intake					
	N	%	N	%	N	%	N	%	N	%
SP availability	12	42.9	536	60.2	25	55.6	33	61.1	606	59.6
Weather problems	2	7.1	79	8.8	3	6.7			84	8.3
Work completed by interviewer on travel/status			107	12.0	4	8.9	2	3.7	113	11.1
Held for nonresponse conversion			115	12.9	6	13.3	4	7.4	125	12.2
Interviewer error	14	50.0	21	2.4	2	4.4	7	13.0	46	4.3
Translator availability			23	2.6	5	11.1	8	14.8	36	3.5
Observer's schedule			10	1.1					10	1.0
Total	28	0.6*	891	18.1*	45	0.9*	54	1.1*	1,018	20.7*

*Percentage of all completed Day 2 Intake interviews. (N = 4,921)

Table 3-9. Timing of DHKS interviews

Weeks between Day 2 Intake and DHKS	DUs with only one SP 20+		DUs with more than one SP 20+: All Day 1 Intakes conducted on same day		Subtotal		DUs with more than one SP 20+: All Day 1 Intakes NOT conducted on same day		Total	
	N	%	N	%	N	%	N	%	N	%
0-13 days (less than 2 weeks)	48	5.2	24	3.6	72	4.5	25	7.7	97	5.1
14 to 27 days (2 to 3 weeks)	683	74.0	527	78.4	1,210	75.9	204	63.0	1414	73.7
More than 27 days (more than 3 weeks)	192	20.8	121	18.0	313	19.6	95	29.3	408	21.2
Total	923	100.0	672	100.0	1,595	100.0	324	100.0	1,919*	100.0

* One DHKS Questionnaire had an incorrect date of administration. This case is not included in the table.

window, 19 percent were completed too soon and 81 percent were completed after 3 weeks. Reasons for conducting the DHKS too soon included the respondent's expected absence during the prescribed window and interviewer error. Reasons for conducting interviews beyond the window period included broken appointments, numerous unsuccessful attempts to interview (e.g., the respondent was too busy or not at home), and refusal conversions by another interviewer(s).

Also contributing to the number of DHKS interviews conducted after the window were specifications for DHKS respondent selection in households with more than one adult SP. DHKS respondent selection requirements specify that one adult per DU be randomly selected from SPs 20 years of age or older who completed the Day 1 Intake. To ensure that all qualifying SPs in the household had a probability of selection, the DHKS respondent was selected after all SPs in the DU had completed the Day 1 Intake interview (or been finalized as a nonrespondent). It was not unusual for SPs in a household to have their Day 1 Intake interviews conducted at different times during the quarter. Therefore, it was possible for some SPs within the same household to have their Day 2 Intake interviews completed before other SPs completed their Day 1 Intake interviews. This made it very difficult to select the DHKS respondent after all the Day 1 Intake interviews were complete and to complete the DHKS 2 to 3 weeks after the Day 2 Intake interview was administered. As shown in Table 3-9, 324 DHKS respondents were in multiple SP households that presented the scheduling problem and 63 percent of the DHKS interviews were completed within 2 to 3 weeks. In households with only one SP or multiple SPs who all completed their Day 1 Intakes on the same day, 76 percent of the DHKS interviews met the scheduling requirement.

3.4.3.4 Data Retrieval for Missing Meals

When conducting Intake interviews for children, it was often necessary to perform data retrieval for meals eaten away from home because many children regularly spend time away from their parents with a baby-sitter, in daycare, or in some preschool or school setting. The parent or other person most knowledgeable about the child's food consumption at home may have little or no information about what the child eats and drinks in settings outside the home. In such cases, the interviewer was required to supplement the information provided by the parent with information from other sources. Sources contacted included schools, child daycare centers, and baby-sitters.

During the Intake interview, the interviewer obtained as much information as possible from the SP or proxy before attempting data retrieval for a missing meal. The interviewer was responsible for

collecting the missing data within 3 days of the interview and usually by telephone. The data required depended on the amount of information collected from the SP or proxy and the type of data retrieval source. For example, schools typically could provide meal descriptions and quantities served whereas baby-sitters could provide descriptions and quantities eaten. Of the 10,109 Day 1 and Day 2 Intakes collected, 57 (less than 1%) required missing meal data retrieval at the time of interview. The data retrieval effort was very successful. Of the 57 Intakes requiring retrieval, interviewers were unable to collect the missing information in only 3 cases. Table 3-10 summarizes the number of Intakes for which data retrieval was performed.

Table 3-10. Distribution of Intakes requiring data retrieval, by SP age and Intake interview

SP age (years)	Day 1		Day 2		Total	
	N	%	N	%	N	%
<6	9	32.1	13	44.8	22	38.6
6-11	12	42.9	15	51.7	27	47.4
>11	7	25.0	1	3.5	8	14.0
	28	100.0	29	100.0	57	100.0

The interviewers reported very few problems with the data retrieval process. Problems that were reported involved scheduling the data retrieval calls and locating the most knowledgeable source to answer the detailed FIB probes.

All data retrieval contacts were recorded on the Follow-up Call Record in the Household Folder. Table 3-11 summarizes contact information for the 57 Intakes requiring data retrieval. In most cases, data retrieval involved contacting schools by telephone to collect missing information about lunches. Twenty-three (40.3%) of the 57 Intakes were missing data from two meals and 4 (7.0%) were missing data from three meals.

Some data retrieval was also done in-house after the Intake was reviewed and it was determined that it did not meet minimum criteria. Refer to Section 4.5.2.2, Minimum Criteria for Intakes, for more information about this data retrieval effort.

Table 3-11. Summary of contacts to conduct data retrieval

Summary information	Contacts	
	N	%
Sources		
School	38	66.7
Child daycare	12	21.1
Baby-sitter	5	8.8
Adult daycare	0	0.0
Other	1	1.7
Not ascertained	1	1.7
Total	57	100.0
Type of attempts		
Telephone	53	79.1
In person	14	20.9
Total	67*	100.0
Missing meal		
Breakfast only	2	3.5
Lunch only	24	42.1
Snack only	2	3.5
Dinner/supper only	0	0.0
Breakfast and lunch	14	24.6
Lunch and snack	8	14.0
Other combination of two meals	1	1.8
Three meals	4	7.0
Meal not ascertained	2	3.5
Total	57	100.0

*For a few cases, both telephone and in-person contacts were required.

3.4.3.5 Respondent Incentives

Several small gifts were given to SPs to encourage participation in the survey. A set of Tupperware® plastic measuring cups and spoons was given to eligible households following the completion of the Screener. An insulated nylon bag with the survey logo was presented to each SP before the Day 1 Intake. After completing the Day 2 Intake, the interviewer gave the SP a travel-type drinking mug, also imprinted with the survey logo, as a thank-you for participating.

3.4.3.6 Market Checks

A market check was requested from ARS whenever an SP reported consuming a food that was new on the market, a food specific to a geographic area, or an unknown ethnic food. For the CSFII/DHKS 1996, interviewers conducted 89 market checks, purchased 64 products, and sent the labels or packages to Westat. Interviewers were unable to locate 19 of the reported foods and 6 "did not exist," according to the manufacturers.

3.5 Data Collection Results

3.5.1 Achieving Response Rates

The response rates for the CSFII/DHKS 1996 exceeded the stated goals for all of the survey's questionnaires. Table 3-12 summarizes the response rate goals and the rates achieved for each questionnaire type. ARS established criteria for when each instrument could be considered complete. The response rates were calculated as follows:

- The **Screener response rate** is the number of DUs screened, divided by the number of occupied units selected for screening. Units that were found to be vacant or that did not meet the definition of a DU were not included in the calculation.
- The **Household Questionnaire response rate** is the number of completed Household Questionnaires, divided by the number of DUs with selected SPs.
- The **Intake interview response rate** is the number of completed Intake Questionnaire(s), divided by the total number of selected SPs.
- The **DHKS response rate** is the number of completed DHKS Questionnaires, divided by the total number of SPs selected for the DHKS.

Attachment 3.F lists the response rates by questionnaire type for each PSU. The response rates in most PSUs were favorable but they do vary because of regional differences in willingness to participate.

Table 3-12. Response rates by questionnaire type

Questionnaire	Response rate goal (%)	Number eligible*	Number of completed interviews	Actual response rate (%)
Screener	98	10,874	10,705	98.4
Household Questionnaire	85	3,018	2,597	86.1
Day 1 Intake	80	6,384	5,188	81.3
Day 2 Intake	75	6,383	4,921†	77.1
DHKS	90	2,088	1,920	92.0

* Does not include households (N=1) and SPs (N=2 for Day 1, 3 for Day 2 , and 1 for DHKS) who left the population of inference before completing the necessary interview. (See Section 6.1 for a discussion of the population of interest.)

† Approximately 95 percent of SPs completing the Day 1 Intake also completed the Day 2 Intake.

A three-phase approach to building response rates was used:

- **Phase 1.** Local interviewers worked their assigned cases, making the required number of visits to try to complete all necessary interviews with a household. If an interviewer was unsuccessful in completing an interview, the case received a nonresponse code until the interviewer could consult further with the supervisor. After reviewing the Call Record, the supervisor advised the interviewer on when to return to the household and how to approach the SP(s). In some cases, the supervisor instructed the interviewer to complete a Non-interview Report Form (NIRF) describing the circumstances of the nonresponse and to mail the case materials to her.

- **Phase 2.** The supervisor reviewed the NIRF for each nonresponse case. If the supervisor believed that conversion was possible, she either returned the case to the interviewer for additional work or transferred it to another local interviewer, if one was available. If a local interviewer was not available, the work was assigned to an interviewer in a nearby PSU.

- **Phase 3.** In the final stages of response rate conversion, the supervisor reviewed the PSU-level response rates and the NIRFs for the PSU to determine the productivity and cost effectiveness of a nonresponse conversion trip by the senior interviewer or another experienced interviewer.

3.5.2 Contribution of Neighbor Information to Screener Response Rate

Interviewers were instructed to obtain Screener information from neighbors when the members of the selected household refused to participate or when no contact had been established with the household after four attempts. (See Section 3.4.3.2 for a discussion of neighbor contact procedures.) Of the 10,705 Screener Questionnaires completed at occupied DUs, 1,131 (10.6%) were completed with neighbors. Supplementing household screening with information from a cooperative neighbor allowed Westat to achieve a 98.4 percent Screener response rate. Without the 1,131 cases for which the abbreviated household enumeration was completed by a neighbor, the Screener response rate would have been 88.0 percent.

Table 3-13 categorizes screened households according to the source of Screener information (neighbor or household member) and eligibility (whether the household had SPs selected). Of the 1,131 households where the screening information was collected from a neighbor, 78 households had selected SPs and 1,053 were screened out of the survey with no selected SPs.

Table 3-13. Distribution of households for which a completed Screener Questionnaire was obtained, by source of Screener information and household eligibility status

Eligibility of household	Screener information from a household member		Screener information from a neighbor*	
	N	%	N	%
Eligible	2,941	97.4	78	2.6
Ineligible	6,633	86.3	1,053	13.7
Total	9,574	89.4	1,131	10.6

* A neighbor is anyone who is not a member of the sampled household (e.g., mailman, storekeeper, apartment manager, person living nearby).

The interviewers made extensive efforts to complete interviews at eligible households identified through neighbors. Of the 161 households initially determined to be eligible through neighbor information, 59 Screeners, or 37 percent, were subsequently completed with household members and the SPs in most cases went on to complete the Intakes. In another 24 cases, contact was attempted with the selected household but cooperation was denied, it was determined that the household was ineligible, or the unit was determined to be unoccupied. In 78 cases, contact was not established with the selected household and the neighbor's report of household eligibility prevailed.

3.5.3 Reasons for Nonresponse

Table 3-14 illustrates the reasons for nonresponse by questionnaire type. Refusals accounted for the largest percent of nonresponse, ranging from 43 to 77 percent across questionnaire types. The next largest category of nonresponse, referred to as maximum attempts, was when the interviewer was not able to contact the household. In most cases, the supervisor authorized many more than the required number of attempts to complete the interview, but the outcome was unchanged.

Also contributing to nonresponse were SPs who were too ill to be interviewed, SPs who spoke neither English nor Spanish and for whom a suitable translator could not be located (e.g., Greek, Chinese, and Korean speakers), SPs who moved and could not be located, and a small number of households located in limited-access buildings or communities. Cases of nonresponse involving language problems or limited-access buildings or communities were not concentrated in particular PSUs. Limited-access buildings and communities received special handling. The interviewer first tried to secure the cooperation of the building manager and then to persuade the sampled households to participate. If building managers resisted, the home office contacted them by telephone or letter to explain the survey and the importance of giving selected households an opportunity to participate. If this approach was unsuccessful, the cases were classified as nonresponse.

3.5.4 Demographic Profiles of Respondents and Nonrespondents

Tables 3-15 through 3-18 present the distributions of respondents and nonrespondents with respect to selected demographic and other characteristics. Table 3-15 compares the distribution of the Screener Questionnaire respondents with the corresponding distribution of nonrespondents, by Census region, MSA status of PSU, and minority status of segment. The "unit of analysis" in Table 3-15 is an occupied DU (household). Table 3-16 compares the distribution of the Household Questionnaire respondents with the corresponding distribution of nonrespondents, by income group and number of SPs selected from the household for the Intake interviews. The unit of analysis in this table is a household with any eligible SPs. Also, note that the low-income group in this table includes households that were classified as below 130 percent of Federal poverty guidelines on the basis of the response to either Screener Questionnaire S14 or Household Questionnaire H47 or were classified as low-income by the imputation rates described in Section 2.5.3.

Table 3-14. Reasons for nonresponse by questionnaire type

Disposition	Screener		Household Questionnaire		Day 1 Intake		Day 2 Intake		DHKS	
	N	%	N	%	N	%	N	%	N	%
Refusal/breakoff	81	48.0	326	77.4	890	74.4	1,030	70.5	72	42.9
Maximum contact	54	32.0	58	13.8	174	14.5	239	16.3	40	23.8
Unavailable for field period	1	0.5	6	1.4	29	2.4	35	2.4	1	0.6
Language problem	3	1.8	13	3.1	37	3.1	40	2.7	8	4.8
Moved, unable to locate/interview	--		8	1.9	37	3.1	71	4.9	30	17.8
Other	30	17.7	10	2.4	27	2.3	42	2.9	17	10.1
Intakes failing to meet minimum criteria for acceptability	--				2	0.2	5	0.3	--	--
Total nonresponse	169	100.0	421	100.0	1,196	100.0	1,462	100.0	168	100.0

N = the number of cases finalized per disposition.

% = the percentage of nonresponse per disposition per questionnaire type.

Table 3-15. Distribution of households in screening sample by response status, region, MSA status, and minority density of segment

Census region	MSA status	Type of segment (minority status)	Screener respondents				Screener non-respondents	
			Number of house-holds with eligible SPs*	Percent of column total	Number of house-holds with no eligible SPs	Percent of column total	Number of house-holds	Percent of column total
Northeast	MSA	High	86	2.8	188	2.4	3	1.8
		Low	417	13.8	1,159	15.1	32	18.9
	NonMSA	High	0	0.0	0	0.0	0	0.0
		Low	61	2.0	164	2.1	2	1.2
Midwest	MSA	High	74	2.5	223	2.9	12	7.1
		Low	408	13.5	1,101	14.3	25	14.8
	NonMSA	High	8	0.3	19	0.2	2	1.2
		Low	205	6.8	494	6.4	3	1.8
South	MSA	High	188	6.2	466	6.1	4	2.4
		Low	583	19.3	1,539	20.0	23	13.6
	NonMSA	High	74	2.5	155	2.0	1	0.6
		Low	212	7.0	518	6.7	5	3.0
West	MSA	High	126	4.2	244	3.2	9	5.3
		Low	412	13.7	1,135	14.8	25	14.8
	NonMSA	High	88	2.9	128	1.7	0	0.0
		Low	76	2.5	153	2.0	23	13.6
TOTAL			3,018	100.0	7,686	100.0	169	100.0

*Excludes one case for which the household interview disposition code is H30 (out-of-scope).

Table 3-16. Distribution of households with eligible SPs by Household Questionnaire response status (respondent vs. nonrespondent) by income (group) and number of SPs

		Household Questionnaire response status			
		Respondents		Nonrespondents	
Income group	Number of SPs	Number of households with SPs	Percent of column total for income group	Number of households with SPs	Percent of column total for income group
All income	1	1,055	40.6	193	45.8
	2	795	30.6	134	31.8
	3+	747	28.8	94	22.3
Total		2,597	100.0	421	100.0
Low income	1	301	45.3	12	48.0
	2	159	23.9	8	32.0
	3+	204	30.7	5	20.0
Total		664	100.0	25	100.0

Table 3-17. Distribution of SPs by Day 1 Intake response status by sex, age, and income

Sex	Age (years)	Income group	Day 1 Intake response status			
			Respondents		Nonrespondents	
			Number of SPs	Percent of column total for income group	Number of SPs	Percent of column total for income group
Male	<1	All income	69	1.3	9	0.8
	1-2		207	4.0	21	1.8
	3-5		169	3.3	23	1.9
	6-11		264	5.1	40	3.3
	12-19		254	4.9	46	3.8
	20-29		307	5.9	98	8.2
	30-39		372	7.2	114	9.5
	40-49		274	5.3	81	6.8
	50-59		268	5.2	73	6.1
	60-69		286	5.5	71	5.9
	70+		196	3.8	51	4.3
Females	<1		53	1.0	7	0.6
	1-2		213	4.1	25	2.1
	3-5		238	4.6	36	3.0
	6-11		233	4.5	39	3.3
	12-19		253	4.9	51	4.3
	20-29		282	5.4	107	8.9
	30-39		277	5.3	62	5.2
	40-49		336	6.5	80	6.7
	50-59		244	4.7	54	4.5
	60-69		245	4.7	63	5.3
	70+		148	2.9	45	3.8
		Total	**5,188**	**100.0**	**1,196**	**100.0**
Males	<1	Low income	23	1.6	3	2.2
	1-2		70	5.0	3	2.2
	3-5		49	3.5	3	2.2
	6-11		89	6.4	7	5.1
	12-19		71	5.1	3	2.2
	20-29		77	5.5	9	6.5
	30-39		79	5.7	18	13.0
	40-49		53	3.8	11	8.0
	50-59		60	4.3	12	8.7
	60-69		67	4.8	6	4.3
	70+		43	3.1	3	2.2
Females	<1		17	1.2	1	0.7
	1-2		65	4.7	4	2.9
	3-5		73	5.2	6	4.3
	6-11		74	5.3	3	2.2
	12-19		82	5.9	8	5.8
	20-29		84	6.0	8	5.8
	30-39		77	5.5	7	5.1
	40-49		77	5.5	5	3.6
	50-59		55	3.9	8	5.8
	60-69		56	4.0	7	5.1
	70+		55	3.9	3	2.2
		Total	**1,396**	**100.0**	**138**	**100.0**

Table 3-18. Distribution of SPs by Day 1 and Day 2 Intake response status by sex, age, and income

Sex	Age (years)	Income group	Day 1 and Day 2 Intake response status			
			Respondents		Nonrespondents*	
			Number of SPs	Percent of column total for income group	Number of SPs	Percent of column total for income group
Male	<1	All income	64	1.3	14	1.0
	1-2		198	4.0	30	2.1
	3-5		163	3.3	29	2.0
	6-11		251	5.1	53	3.6
	12-19		238	4.8	62	4.2
	20-29		288	5.9	117	8.0
	30-39		338	6.9	147	10.1
	40-49		260	5.3	95	6.5
	50-59		251	5.1	90	6.2
	60-69		276	5.6	81	5.5
	70+		186	3.8	61	4.2
Female	<1		49	1.0	11	0.8
	1-2		204	4.1	34	2.3
	3-5		228	4.6	46	3.1
	6-11		220	4.5	52	3.6
	12-19		240	4.9	64	4.4
	20-29		266	5.4	123	8.4
	30-39		265	5.4	74	5.1
	40-49		323	6.6	93	6.4
	50-59		233	4.7	65	4.4
	60-69		236	4.8	72	4.9
	70+		144	2.9	49	3.4
		Total	**4,921**	**100.0**	**1,462**	**100.0**
Male	<1	Low income	21	1.6	5	2.3
	1-2		65	4.9	8	3.7
	3-5		49	3.7	3	1.4
	6-11		84	6.4	12	5.5
	12-19		66	5.0	8	3.7
	20-29		74	5.6	12	5.5
	30-39		70	5.3	26	12.0
	40-49		52	4.0	12	5.5
	50-59		56	4.3	16	7.4
	60-69		63	4.8	10	4.6
	70+		38	2.9	8	3.7
Female	<1		15	1.1	3	1.4
	1-2		60	4.6	9	4.1
	3-5		68	5.2	11	5.1
	6-11		69	5.2	8	3.7
	12-19		76	5.8	14	6.5
	20-29		83	6.3	9	4.1
	30-39		75	5.7	9	4.1
	40-49		74	5.6	8	3.7
	50-59		53	4.0	10	4.6
	60-69		53	4.0	10	4.6
	70+		52	4.0	6	2.8
		Total	**1,316**	**100.0**	**217**	**100.0**

* Includes SPs who completed a Day 1 Intake but not a Day 2 Intake interview.

Tables 3-17 and 3-18 compare the distribution of Intake Questionnaire respondents with the corresponding distribution of nonrespondents, by income level, sex, and age. The unit of analysis in Tables 3-17 and 3-18 is an SP. Finally, Table 3-18A compares the distribution of SPs selected for the DHKS by response status, income level, sex, and age.

The purpose of these descriptive tables is simply to document some differences between the various sets of respondents and nonrespondents. The tables are not intended to give a comprehensive analysis of differences between respondents and nonrespondents. Section 5.2, which describes the nonresponse weighting adjustment procedures, gives more information about demographic and other variables that appear to be related to survey nonresponse.

As Table 3-15 shows, nonresponse to the Screener Questionnaire was generally very low. Any potential bias resulting from Screener nonresponse is therefore likely to be trivial. Nonetheless, there are some differences between Screener respondents and nonrespondents. For example, a lower percentage of nonrespondents than of respondents live in the South region indicating slightly higher Screener response rates in the South. On the other hand, a higher percentage of nonrespondents than of respondents live in low minority, non-MSA areas in the West.

Table 3-16, which shows the distribution of households by Household Questionnaire response status, income level, and number of SPs in the household, indicates that a somewhat greater percentage of Household Questionnaire nonrespondents than of respondents are in households with only one SP. Though not tested for statistical significance, it appears low-income households were more likely than non-low-income households to complete the Household Questionnaire.

Tables 3-17 and 3-18 indicate that compared with respondents, higher percentages of nonrespondents were males, ages 20 to 59 in both the low-income and non-low-income groups for both the Day 1 and the 2 days. The tables also indicate that the drop in participation from the Day 1 Intake interview was generally small (about 5 percent), with the largest drop occurring for infants under 1 year of age and persons 30-39 years of age.

Finally, the results in Table 3-18A indicate that nonresponse to the DHKS was higher among men than among women. Greater percentages of nonrespondents than of respondents were 20 to 39 years of age (20 to 29 for non-low-income women) and (for men only) 70 years of age and older.

Table 3-18A. Distribution of SPs selected for DHKS, by response status by sex, age, and income

Sex	Age (years)	Income group	DHKS response status			
			Respondents		Nonrespondents	
			Number of SPs	Percent of column total for income group	Number of SPs	Percent of column total for income group
Male	20-29	All income	147	7.7	22	13.1
	30-39		222	11.6	25	14.9
	40-49		160	8.3	7	4.2
	50-59		159	8.3	14	8.3
	60-69		192	10.0	14	8.3
	70+		128	6.7	12	7.1
Female	20-29		147	7.7	20	11.9
	30-39		163	8.5	13	7.7
	40-49		190	9.9	14	8.3
	50-59		148	7.7	9	5.4
	60-69		165	8.6	12	7.1
	70+		99	5.2	6	3.6
		Total	**1,920**	**100.0**	**168**	**100.0**
Male	20-29	Low income	30	5.9	4	7.3
	30-39		51	10.1	7	12.7
	40-49		36	7.1	2	3.6
	50-59		42	8.3	4	7.3
	60-69		50	9.9	5	9.1
	70+		25	4.9	9	16.4
Female	20-29		47	9.3	6	10.9
	30-39		48	9.5	7	12.7
	40-49		56	11.0	4	7.3
	50-59		41	8.1	1	1.8
	60-69		42	8.3	3	5.5
	70+		39	7.7	3	5.5
		Total	**507**	**100.0**	**55**	**100.0**

3.6 Quality Control Measures and Feedback to Field Staff

Westat and ARS conducted an ongoing quality control program throughout the year. The program consisted of practice interviews completed by the interviewers, review of taped interviews, in-person observations of interviews, validation interviews, and regular feedback to the interviewers from the home office staff who processed completed questionnaires.

3.6.1 Quality Control Measures

3.6.1.1 Practice Interviews

After completing the 7-day training session, interviewers new to the CSFII/DHKS 1996 were instructed to complete practice interviews of the Screener, Household, Day 1, and DHKS Questionnaires with a neighbor or friend in their home communities. Interviewers mailed their completed practice interviews to their supervisors for review. If the interviewer had an unsatisfactory number of errors or omissions, the supervisor provided telephone retraining by referring the interviewer to sources in the Interviewers Manual or stepping through particular food probes in the FIB. Interviewers also completed a scripted Day 2 Intake over the telephone with their supervisors. As soon as the practice interview and the telephone Intake had been completed to the supervisor's satisfaction, the interviewer was allowed to begin his or her data collection assignment.

3.6.1.2 Taped Interviews

The supervisors continued to monitor the quality of each interviewer's work through a series of three tape-recorded interviews. Each interviewer was instructed to tape record one Intake interview, either a Day 1 or Day 2 interview that had been administered in person, and two DHKS interviews that had been administered over the telephone. Cases to be taped were selected by the regional supervisor in consultation with the interviewer. Additionally, 12 taped Household Questionnaires were required, but 13 were actually taped because one interviewer taped both the Intake and the Household Questionnaire when required to tape only the Intake. Westat provided a special telephone adapter to ensure a high-quality recording. Respondent permission was secured in advance of taping.

All taped interviews were mailed to the supervisor for evaluation. Listening to the tapes allowed the supervisor to evaluate the dynamics of the interviewer-respondent interaction and how the interviewer handled the questionnaires. An evaluation form was completed for each tape (see Attachment 3.G), and the results were shared with the interviewer. Evaluation items included the interviewer's ability to follow prescribed procedures and to use measuring guides, handcards, and the FIB probes. In the DHKS interview, supervisors noted whether the interviewer referred to the correct answer categories and used the random starts. A sample of tapes was also reviewed by the field director and the project nutritionist before being forwarded to ARS.

Table 3-19 summarizes the evaluations of the 274 taped interviews. An overall evaluation score was assigned by the evaluator, with 1 being poor and 5 excellent. A score of excellent was assigned if the interviewer did not deviate from questionnaire wording. If there was minor paraphrasing, the evaluator judged the tape very good or good depending on the amount of paraphrasing. Of the 13 tape-recorded Household Questionnaire interviews that were administered in English, all were judged excellent or very good. One hundred percent of the Intake interviews were excellent to good. One-hundred percent of the tape-recorded DHKS interviews received an evaluation score of excellent, very good, or good.

Table 3-19. Evaluation of taped interviews by questionnaire type

Questionnaire type	Number of taped interviews	Overall rating*				
		5	4	3	2	1
Household Questionnaire	13	10	3	0	0	0
Day 1 Intake	29	11	15	3	0	0
Day 2 Intake	61	35	20	5	0	0
DHKS	171	127	35	7	0	0
Total	274	183	73	15	0	0

* 5 = excellent; 4 = very good; 3 = good; 2 = fair; and 1 = poor.

Three Spanish language interviews were tape recorded and forwarded to ARS. These were not evaluated by the supervisors. Of these, one was a Day 2 Intake interview, and two were DHKS interviews.

Telephone retraining was provided to the interviewers whenever problems were found with the administration of any of the instruments. Supervisors followed up on this retraining through Westat's ongoing quality control procedures discussed in this section.

3.6.1.3 In-Person Observations

Westat's field director, field supervisors, and ARS staff made in-person observations of interviewers at work. Most of the observations took place after the attrition training. All of the interviewers who were trained in March 1996 were observed in person.

Sixteen interviewers were observed. The regional supervisors observed 12 interviewers; the Westat field director, 2; and ARS staff, 2.

A total of 25 interviews were observed. Westat observed the conduct of three Screeners, one Household Questionnaire, seven Day 1 Intakes, and eight Day 2 Intakes. ARS staff observed the conduct of one Household Questionnaire and five Day 1 Intakes. An observation form (see Attachment 3.H) was completed for each observation conducted by Westat, and the results were shared with the interviewer. Generally, the observers were very pleased with the quality of the interviewers' work, their facility in using the FIB, their skill in getting the respondent to use the measuring guides and handcards, and their general enthusiasm for the survey.

3.6.1.4 Validation Procedure

Westat used validation interviews to verify that an interview had been conducted at the assigned address according to survey procedures. Validation cases were randomly selected and included households with SPs, ineligible households, and units reported as vacant. For the CSFII/DHKS 1996, 2,807 DUs, or 22 percent of the sampled DUs, were selected for validation. Of these, 2,510 (89%) were preselected prior to sending assignments to interviewers, and 297 (11%) were selected during the data collection effort. The 2,807 were selected to guarantee that at least 10 percent of every interviewer's work was validated. Of the 2,807 selected for validation, 2,129, or about 17 percent of sampled DUs, were validated.

Table 3-20 shows the Screener dispositions for the cases validated. The supervisors conducted most validations by telephone; many of the cases without telephone numbers were attempted in person.

Table 3-20. Screener disposition of cases validated

Screener disposition	Cases validated	
	N	%
Eligible, household report	507	23.8
Eligible, abbreviated household report	14	0.7
Eligible, neighbor report	17	0.8
Ineligible, household report	1,013	47.7
Ineligible, abbreviated household report	50	2.3
Ineligible, neighbor report	160	7.5
Vacant, not a DU	356	16.7
Maximum calls	2	0.1
Refusal	9	0.4
Other, Final	1	0.0
Total	2,129	100.0

At least 10 percent of each interviewer's work was validated. The problems uncovered during validations are summarized below:

- Three cases were initially judged to be potential problems, but when investigated further by the supervisor they proved to be valid.
- One interviewer mailed to Westat two cases that did not pass the validation interview. During the course of the quarter, 10 cases completed by this interviewer passed the validation interview. The interviewer was dismissed.

Table 3-21 summarizes the results of the validation procedure.

Table 3-21. Validation results by level of validation

Number of cases validated per interviewer	Number of interviewers	Number of validated cases	Validation result codes*		
			01	02	03
10 or less	16	85	85	0	0
11-20	33	605	603	0	2
21-30	25	676	673	3	0
31-40	13	246	246	0	0
41 or more	11	517	517	0	0
Total	98	2,129	2,124	3	2

* 01 = acceptable; 02 = potential problem; 03 = unacceptable.

3.6.1.5 Quality Review Forms

A quality review of completed questionnaires was performed at Westat's home office before instruments were coded. Coders completed a form documenting the results of the review. These forms were forwarded to the field director, who reviewed them before passing all of them on to the field supervisors. The supervisors received the forms on a weekly basis and discussed all problems with the interviewers. If it helped interviewers to understand their mistakes, the completed questionnaires were photocopied and sent to the interviewer. (For a complete discussion of the review, see Sections 4.5.2 and 4.6.2.)

3.6.2 Feedback to the Field Staff

The quality control measures described above were designed to provide the interviewers with timely information about their performance. Several techniques were used to communicate with the interviewers and to provide retraining, if appropriate.

3.6.2.1 E-Mail Communications

Home office and field staff communicated quickly and efficiently through E-mail. The interviewers' laptop computers were loaded with an E-mail utility program that facilitated communication on issues that required timely resolution, such as the situations described below.

- **SP Selection Errors.** When the home office's review of a completed Screener Questionnaire revealed that an SP had been selected in error, the field director used E-mail to inform the supervisor of the problem. The supervisor, in turn, reviewed the error with the interviewer and action was taken that would minimize the number of interviews completed with the missampled SP.

- **Information From Toll-Free Calls.** Many of the calls received on the toll-free telephone line at Westat were from respondents wishing to reschedule an appointment or contact an interviewer. Timely delivery of this information to interviewers enhanced the data collection activities.

- **Data Clarification.** If a questionnaire item or entry was unclear to coders at the home office, E-mail was used to contact the interviewer for clarification.

- **Requests for Refusal Conversion Letters.** Supervisors used E-mail to request that the home office prepare personalized letters to nonrespondents.

3.6.2.2 Field Staff Memos

Westat prepared two field staff memos during CSFII/DHKS 1996. The first memo, mailed in May, accompanied the spring edition of the project's newsletter, *Food for Thought.* Included in the mailing was a replacement page for the Food Instruction Booklet, a press release, and an E-mail instruction sheet. The memo pointed out that Olestra was added as a FIB probe for snack chips and crackers. The press release, issued by USDA, focused on the diets of children as reported in the 1994 data set. The E-mail instructions covered the most efficient way to respond to a message. The second memo, mailed in August, accompanied the summer edition of the Newsletter. It included the 1996 Debriefing Questionnaire. The interviewers were instructed to complete the questionnaire and return it to Westat before mid-September. (See Attachment 3.H for the memos).

3.6.2.3 Newsletter

Three issues of the survey newsletter, *Food for Thought*, were prepared for the field staff. The field director, the director of data processing, the project nutritionist, and ARS staff provided input, and humorous stories from the interviewers rounded out each issue. The newsletter focused on clarifying questions raised by the interviewers in their interviewer diaries, which were provided to the interviewers with instructions to record questions, unusual situations encountered in the field, procedural questions, questionnaire item clarification, and issues related to the FIB. Interviewers removed completed diary pages from the binder and mailed them to Westat every 4 months. The project nutritionist also anticipated such events as holiday meals or picnic foods that might occur in the near future and provided reminders on how to use the FIB when reporting these food items. The data preparation manager wrote a column reporting on systematic errors discovered during quality review and coding and re-emphasized proper handling of problem areas. The final issue of the newsletter, mailed in December 1996, was expanded to 12 pages from the normal 8 pages to accommodate all of the interviewers' stories and reminiscences about the survey.

3.6.2.4 Interviewer Debriefing

In August 1996, interviewers received a questionnaire to capture their reactions to and experiences with a variety of survey materials and procedures. Included were questions about using the advance materials, working with the FIB and measuring guides, administering the Intakes by telephone, and related issues. Interviewers were also asked to comment on changes they would recommend for future CSFII surveys. The Debriefing Questionnaire became the basis for a 1-day in-person debriefing held in February 1997. Nine interviewers and four field supervisors attended the debriefing in Rockville, MD. The session was led by the field director and observed by Westat and ARS staff. Attachment 3.I contains the Interviewer Debriefing Questionnaire, showing the tally of responses and examples of the interviewers' comments. Attachment 3.K summarizes the in-person interviewer debriefing session.

4. DATA PREPARATION AND PROCESSING

4.1 Overview of Data Preparation and Processing Activities

The data preparation and processing for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS) began when completed questionnaires arrived at Westat's home office and were receipted into the Forms Tracking System (FTS). The FTS was used to monitor each document as it went through the various steps of data processing.

Completed Intake Questionnaires received a quality review to determine whether they met the minimum criteria for completeness, to identify missing information, and to record errors that could be reported to the interviewer. The food-related items in the Intake Questionnaires were coded by 11 trained food coders using Survey Net, an automated system provided by the Agricultural Research Service, United States Department of Agriculture (ARS, USDA). The non-food items in the Intake Questionnaires and the non-Intake documents (i.e., Screeners, Household Questionnaires, DHKS Questionnaires, Non-interview Report Forms [NIRFs], and Call Record Folders) were coded, key entered, and machine edited using Westat's systems for these processes. Pencils of different colors were used to differentiate each manual processing task (red for coders, purple for verifiers, orange for machine editors, and green for the receipt clerk).

All survey documents were completely processed and the last CSFII/DHKS 1996 data delivery was transmitted to ARS on February 11, 1997, 2 weeks earlier than required by the contract.

4.2 Refinements to CSFII/DHKS 1995 Procedures and Materials

The CSFII/DHKS 1995 survey provided valuable experience that was incorporated into a few refinements for the CSFII/DHKS 1996. Updates to the second-year materials and procedures follow.

- Procedures were modified to receipt, track and coordinate the movement of documents through processing to accommodate two persons performing the receipting tasks. Two persons were assigned to receipting tasks to expedite the flow of documents.

- The training materials for receipt control staff training were revised and expanded. Materials included an overview of the document flow through processing, a detailed

description of each receipting task with step-by-step instructions for completing each, and instructions for handling problems such as a questionnaire that does not meet minimum criteria.

4.3 Receipt and Tracking of Documents

The FTS is an automated system that was developed by Westat for the CSFII/DHKS. The system was developed to monitor the progress of documents through every step of data processing by recording when and by whom each task was completed. All survey documents, including questionnaires, the Call Record Folder, and the NIRF, were tracked through the FTS. Household composition, document disposition, and case ID information from the Field Management System (FMS) was downloaded into the FTS weekly; during the receipt process, the clerk compared the data from the FMS to the hard-copy documents. Discrepancies were resolved by the field director.

Documents were receipted and batched at Westat according to the following procedures.

- The contents of each package were checked against the accompanying transmittal sheet completed by the interviewer.
- Documents were sorted according to document type. Screener and Household Questionnaires were kept together because they contained a great deal of interrelated information. The Intake Questionnaires for a household were also kept together to enhance the efficiency of food coding.
- For non-Intake documents, a General Edit was performed at the time of receipt to determine if the document met the minimum criteria defined by ARS.
- All non-Intake documents that met the requirements of the General Edit were receipted into the FTS. If the questionnaire did not meet the minimum criteria, or if the review revealed that an SP had been selected in error, documents were held for data retrieval or corrective action in the field. (See Section 4.5.2.2 for a discussion of the procedures for retrieving missing information.) Examples of the General Edit forms for non-Intake documents are included as Attachment 4.A.
- Intake documents were receipted and kept together in separate batches. They did not undergo a review to determine whether they met the minimum criteria at the time of receipt.
- The receipt clerk also checked to see if a case had been selected for validation. Documents associated with validation cases were receipted, sorted, and held until all documents relating to the case had been received. Then portions of the documents were

photocopied and sent with a validation form to the regional supervisors before further processing occurred.

- The FTS created batches (work units for the reviewers and coders) of 10 Intake or 20 non-Intake documents. The system also generated a Batch Control Form, which listed the IDs in the batch and traveled with the documents.

After batching, Intake and non-Intake documents were routed differently through data processing. The Intake documents were coded by food coders, and the non-Intake documents were coded by staff members responsible for coding only non-Intake documents. After coding, the non-Intake documents were verified, keyed, and machine edited. The Intake instruments were assigned to trained food coders, and the coder's ID and the batch number were recorded in the FTS. The food coders first reviewed the questionnaires and then used Survey Net to code the Intakes. After the Intakes had been coded, they were verified, adjudicated, and subjected to manual editing of the food item information. Non-food data was then key entered and machine edited.

The FTS produced daily and weekly reports. The daily report was simply a snapshot of the FTS files, whereas the weekly reports were more thorough. The weekly reports detailed the number and disposition of each document received, the number of documents in each processing step, the status and results of quality control operations (i.e., Survey Net verification), response rates by PSU and income level (non-low or low) and interviewer, and the percentage of Intake Interviews completed on each day of the week. The daily snapshot and the weekly report were transmitted electronically to ARS.

4.4 Recruiting and Training Data Preparation Staff

In 1996, there was no food coder attrition. During the course of the year, there was turnover and reassignment of tasks among the nonintake and receipt control staff. One nonintake coder left for personal reasons and another assumed the position of receipt clerk on the project. One receipt clerk left for medical reasons and three left for positions elsewhere.

The non-Intake coders hired in 1996 were experienced Westat coders. They were given 3 days of training from the materials developed for the 1994-1995 training. They received the manual, *General Instructions for Reviewing and Coding Non-Intake Questions,* and codebooks for each non-Intake document. The manual contained an introduction to the collection of non-Intake data, the data flow, the General Edit, and Westat's coding conventions. The codebooks included file layouts, precodes, special

notes to coders, and logics used in machine editing. Training exercises were scripted to incorporate many of the data problems the coders would encounter. Exercises were corrected and annotated to provide feedback to the trainees. One-hundred percent of their work was verified until their error rate was at an acceptable level and then 10 percent of their work was verified.

Experience from the previous 2 survey years had shown us that the best way to train a receipt clerk was to train gradually over a period of 1 to 3 months. The best trainer was an experienced receipt clerk with a background in coding. During the training period, the experienced clerk would manage the flow of documents and resolve problems as they occurred. In this way, the novice receipt clerk was able to concentrate on learning the many tasks involved with receipt and preparation for the weekly delivery. The departure of one receipt clerk was known several months in advance. She trained the first receipt clerk hired in 1996 using the approach described above. Less notice was provided by the other departing clerks and the training protocol was revised when new clerks were brought on.

In a 2-week training session led by the director of data preparation and one of the programmers on the project staff, the clerks were trained to review, receipt, batch, and track documents, to run merge, missample, and edit programs, to process validation cases, and to electronically deliver documents to ARS. At training, they were given detailed written instructions for performing all of these tasks. The new receipt clerks were closely monitored for 2 weeks after they were trained.

4.5 Processing Intake Questionnaires

4.5.1 Introduction

Within 2 days of an Intake's receipt at Westat, the coders performed an Intake Review. The results of the review were summarized and reported to the field supervisors and the interviewers as needed. If an Intake was missing critical information, data retrieval was conducted in an attempt to obtain the information.

The coding of 10 percent of Intakes was verified by having a second coder independently enter the information into Survey Net. The two entries were compared using adjudication reports developed by Westat, and the results were used to provide the coders with feedback. Throughout the year, coder error rates were 0.2 percent. The Survey Net system has a feature that allowed coders to enter comments and

questions into a "notepad" file. The coding supervisors reviewed notepad entries for each Intake and provided feedback when necessary. The supervisors also reviewed all unknown foods, foods not available in Survey Net, and recipes that the coders modified.

The non-food questions on the Intake Questionnaires were manually coded, verified by having a second coder check the accuracy of each coded response, key entered using the Tartan data entry system, and machine edited using programs developed with Westat's COED software. Survey Net data, non-food data, and the hard-copy Intake Questionnaires were delivered to ARS weekly.

Figure 4-1 illustrates the data flow and processing steps for Intake data.

4.5.2 Intake Review

4.5.2.1 Introduction to the Review Process

Thorough procedures were developed to monitor the quality of the Intake data and to provide the interviewers with timely feedback. The in-house review process for the Main Survey evolved from the procedures used on the Pilot Study. Whereas a two-stage process was used during the Pilot Study, the review and coding of Intakes were performed concurrently by the same coder during the Main Survey. Also, the review was automated to decrease the time required to complete the review and produce a document that would provide detailed feedback to the field staff and summary information on the quality of each interviewer's work. Exhibit 4-1 shows a completed computerized Intake Review form.

The review of each Intake included three parts:

1. An edit to determine whether the Intake met ARS's minimum criteria for completeness;
2. A line-by-line review of the description and quantities collected about each reported food; and
3. A check for general interviewer errors in recording.

Figure 4-1. Data flow and processing steps for Intake data

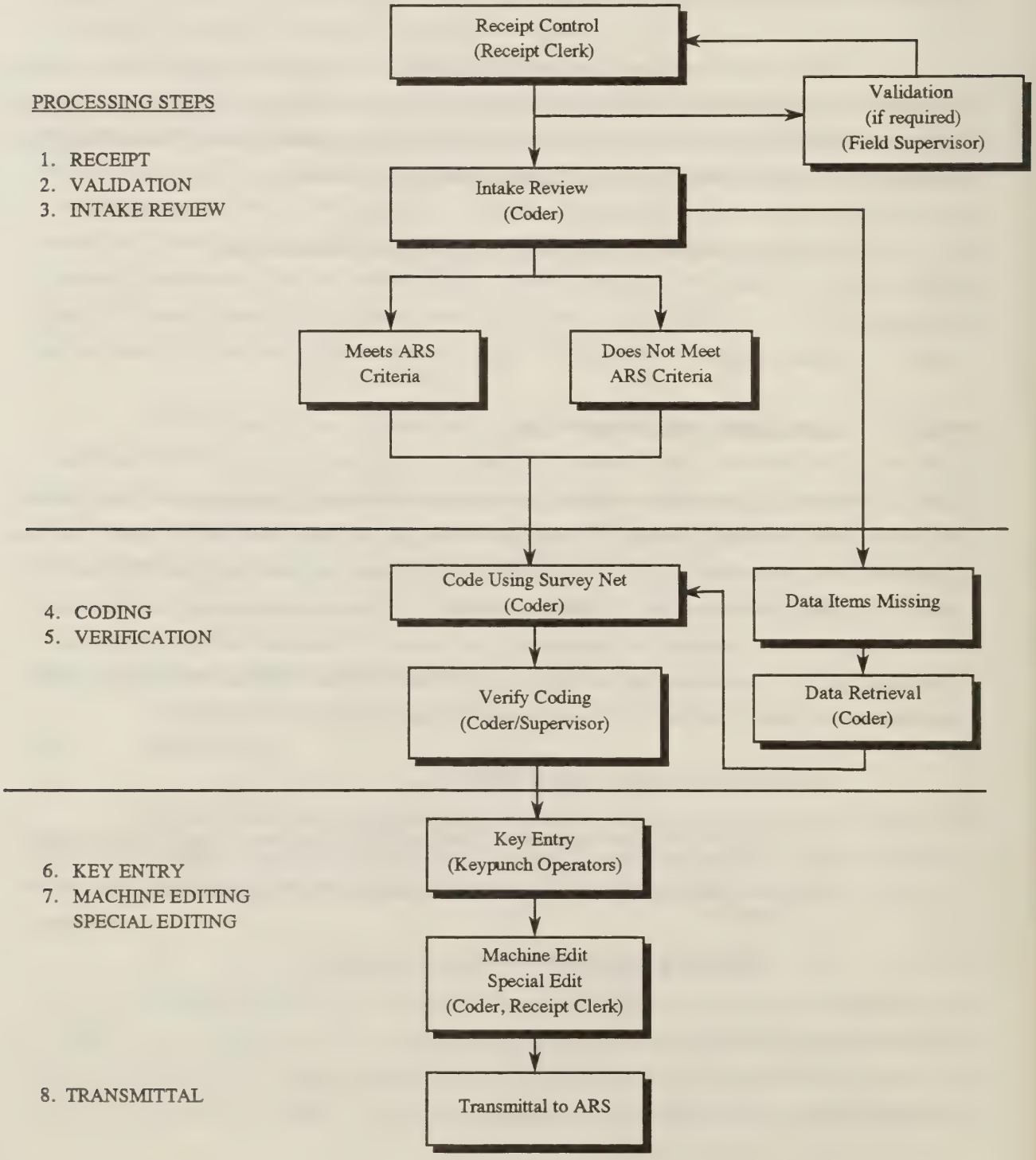


Exhibit 4-1. Screen from the automated Intake Review

INTAKE REVIEW PAGE NO.: 1

Household+Sp id+Intake(1 or 2): 2071141129 - 02 - 2

PART 1 - INTAKE MINIMUM CRITERIA

Interviewer Initials: KAY Date of Review: 06DEC1995

Coder/Reviewer ID : 005 Batch Number : 2991

Total Number of Food Items in Food/Drink Column : 14

1. Number of Food Items with NO Description : 0 0 %

2. Number of Food Items with NO Amount : 0 0 %

3. Meals reported by the SP with NO Foods/Amounts? : N

Did Intake meet minimum criteria? : Y

Reason(s) Intake did NOT meet min criteria : / /

PART 2 - DETAILED MISSING FOOD INFORMATION

Line #	Missing Food	Missing Detail
5	Apple	Small, medium or large apple?
6	Bread on pb sandwich	Regular, thick or thin slices?
12	Ice cream	Anything added to ice cream?

GENERAL COMMENTS ABOUT THE INTAKE: It looks as though you used the FIB well for most foods. Good job.

PART 3 - GENERAL INTERVIEWER ERRORS

No editing marks on the Intake ----------> :
Combination is not bracketed ----------> :
Eating occasion is blank ----------> :
Time of eating occasion is blank ----------> :
AM/PM is not circled for time of eating occasion ----------> :
Data Retrieval is incorrectly recorded. ----------> :
Writing is difficult to read ----------> :
Not enough space used to record descriptions ----------> :
Quick List - No underline after first pass ----------> :
Quick List - Items are not transferred to Food/Drink column --> :
Reference to another food item is unclear ----------> :
Nothing Else - is not written at the end of the Intake -------> :
Skip pattern(s) incorrect for Q:
Interviewer observation incomplete. ----------> :

Other:

4.5.2.2 Minimum Criteria for Intakes

To be considered complete, an Intake had to include the following:

1. Sample descriptive data (i.e., segment identification and housing unit identifiers);
2. The SP's first name or other suitable designation and his or her person identification number;
3. The SP's age or date of birth;
4. The date and day of the week on which the Intake interview was conducted;
5. At least one food or beverage for each eating occasion reported by the SP [i.e., if the food record indicated an eating occasion but did not list the food(s) or beverage(s) consumed, the Intake would not be considered complete];
6. Sufficient detail to permit coding for at least 75 percent of the reported foods; and
7. Information on quantity consumed for at least 85 percent of the reported foods.

Of the 10,116 CSFII 1996 Intake Questionnaires delivered to ARS, only 7 did not meet the minimum criteria. Five of the seven Intake Questionnaires did not meet the minimum criteria because no food(s) or beverage(s) was reported for an eating occasion. Two Intake Questionnaires did not meet minimum criteria because amounts were absent from more than 15 percent of the foods reported.

Initially, approximately 83 Intakes were determined not to meet minimum criteria when they were reviewed at Westat. Because Intake Questionnaires are reviewed within 2 days of receipt, data retrieval from the interviewer or the SP was possible while the interview was still relatively fresh in their minds. For example, if an Intake was missing a description of a meal eaten away from home by a young child, the coder called the daycare or other source identified on the Household Folder Call Record. Or, if the quantity and/or descriptive information was missing, the coder called the SP in an attempt to retrieve the information. Although in-house data retrieval efforts were largely successful, seven Intakes still did not meet the minimum criteria after data retrieval.[1] All seven Intakes were for female children under 6 years old. Five of the seven Intakes were for Day 2 and two were for Day 1. The main reason the Intakes did not meet minimum criteria was that the information could not be obtained from the daycare provider (i.e., the

[1] Six additional Day 1 Intake Questionnaires did not meet minimum criteria. With the agreement of both Westat and ARS, complete Day 2 Intake data provided by these six SPs replaced the incomplete Day 1 data, so that the Day 1 Intake was then considered complete and meeting minimum criteria. The Day 2 Intake received a unique nonresponse disposition code (disposition code F25).

parent refused to give consent to call the daycare, the daycare refused to provide the information, the SP or daycare had no telephone, or the daycare no longer had the meal information).

The ability of children aged 6 to 11 years to report for themselves in the presence of a parent was of particular interest to ARS because the data for this age group were collected by proxy in previous surveys. During the CSFII 1996, all questionnaires for 6- to 11-year-old SPs met the minimum criteria.

4.5.2.3 Missing Detail for Food Items

Interviewers were trained to use the probes in the FIB to obtain the necessary detail for each reported food. The probes included very specific information about the food, such as the preparation method, quantity, type of fat used, brand, dilution, and whether or not salt was added. If the SP could not answer a probe, the interviewer was required to document the response as a "don't know" (D.K.) on the Intake. The coder used the FIB to perform a line-by-line review of each reported food item. On the Review Form, the coder noted the line number, food type, and any missing probes. Exhibit 4-2 is a page on cooked cereals from the FIB to illustrate the detailed probes required when reporting foods.

By reviewing the results of the first quarter of Intakes from Year 1 (1994), Westat attempted to develop a measure of quality on the level of missing detail that still permitted adequate coding of most foods using the most specific code and quantity available in Survey Net. The conclusion was that 20 percent or less missing detail still allowed for high-quality coding.

Exhibit 4-3 is an example of an Intake with 20 percent missing detail. On line 5, the amount of apple consumed is reported as "1," but the FIB probe for amount is "Was it small, medium, or large?" Although "1 apple" can be coded in Survey Net, the interviewer should have asked the probe specified in the FIB. If the SP could not answer the FIB probe, the interviewer should have written "D.K. size," to indicate that the SP was unable to answer the probe. This notation was the only means by which the reviewer could verify that the interviewer had asked the probe. On line 6, the amount of bread in the sandwich is documented as "2 sl." The probe in the FIB for the amount asks for the number and size of the slices. Again, the amount can be coded but not to a specific enough level. On line 12, the FIB requires a probe for additions to ice cream. If the SP had reported no additions to the ice cream, the interviewer

Exhibit 4-2. Sample page from the Food Instruction Booklet

CEREALS, PASTA, RICE

Food/Drink Category	Q4. Description of Food/Drink	Q5. How much of this (FOOD) did you actually (eat/drink)?
Cooked Cereals	**KIND:** What kind was it? (Was it oatmeal, cream of wheat, commeal mush, grits, kasha, whole wheat...?) **BRAND:** What was the brand name? **TYPE:** Was it regular-cooking, instant, or quick? **If instant** – Was it plain or flavored? **PREPARATION:** How was it prepared? **Liquid:** Was it made with milk, water...? **If prepared with milk** – Was the milk whole, lowfat (1%, 2%), skim...?  **Salt:** Was salt used in cooking or preparing the (FOOD)? (DK SALT, NO SALT, SALT USED)  **Fat:** Was any kind of fat or oil used in cooking or preparing the (FOOD)? (DK FAT, NO FAT, FAT USED) **If fat used** – What kind? **Other ingredients:** Was anything else added in cooking? **If yes** – What was it?  **ADDITIONS:** Did you add anything to the (FOOD)? RECORD EACH ADDITION ON A SEPARATE LINE IN THE FOOD/DRINK COLUMN, COMPLETE Q5 FOR THE ORIGINAL FOOD, AND THEN ASK Q4 AND Q5 FOR EACH ADDITION. **Examples:** *Milk or cream, pages 6, 8* *Sugar or sugar substitute, page 20* *Fruit, page 31* *Butter, margarine, page 77*	**IF VOLUME:** How much? (Tsp, Tbsp, Cup) (SPECIFY DRY OR COOKED) **IF WEIGHT:** What was the package weight and portion eaten? (DRY ONLY) (**Example:** 1/2 of 3/4 WO package)

Exhibit 4-3. Intake with 20 percent missing detail

	Food/Drink and Additions	Description of Food/Drink and Ingredient Amount	How much of this (FOOD) did you actually (eat/drink)?	Missing Detail	
1	Coffee	ground, reg	1 C		
2	milk	1%, liquid	1 TBSP		
3	Toast	white bread, presliced, comm'l, reg, toasted	2 reg sl		
4	Butter	Land O' Lakes, salted stick, reg	1 TBSP		
5	Apple	fresh, no adds	(1)	Line 5	Apple -- Small, medium or large apple?
6	PB+Jelly Sandwich	Bread: whole wheat, 100% comm'l, reg (2 sl)	1 sandwich	Line 6	Bread on sandwich -- Regular, thick or thin slices?
7		PB: reg 2 TBSP			
8		Jelly: Jelly, reg 1 TBSP			
9	Coke	Cola, Coke, decaf, Diet	12 FO Can		
10	Mac + Cheese	Dry mix, dry cheese 2% milk, Salt used, fat used, Shedd's Spread NO ADDS	1 ½ C		
11	Green Beans	Cooked from fresh no sauce/ma Salt used, fat used Shedd's Spread, NO ADDS	1 C		
12	Ice Cream	ice cream, Breyer's, butter pecan, bulk	1/2 C	Line 12	Ice Cream -- Anything added to ice cream?
13	Tea	leaf, reg, no sweetener Upton's	1 C		
14	lemon	fresh, no adds	1/8 med lemon		
15	Crackers	Saltines, reg, Nabisco	4 Square Crackers		
16	Cheese	American, processed reg, presliced Kraft	2 sl		

should have written "no adds." Note that the food and quantity descriptions in Survey Net have varying levels of specificity. If a food is not completely described, the coder can assign a less specific code or amount that represents the value of only the information actually reported.

The interviewers continued to demonstrate improvement in the quality of Intake data collected. The percentage of interviewers with less than 20 percent missing detail on their Intakes increased from 88 percent in 1995 to 91 percent in 1996. Figure 4-2 shows that the percentage of interviewers with less than 20 percent missing detail on their Intakes was 90 percent in Quarters 2 and 4, 91 percent in Quarter 1, and 93 percent in Quarter 3. Also, the average percentage of missing detail decreased from 12 percent in 1995 to 10 percent in 1996. As shown in Figure 4-3, the average percentage of missing detail in 1996 was consistently low at 10 percent in Quarters 1, 3 and 4, and 11 percent in Quarter 2. As in 1995, the two most common missing details in the CSFII 1996 were quantity consumed and additions to food.

4.5.2.4 General Interviewer Errors

In addition to providing an insufficient description of reported foods, interviewers could make other types of errors. To accommodate the documentation of these other errors, the Review Form listed the 14 most common types of mistakes discovered on the Pilot Study.

A way of looking at interviewer performance is to examine the average number of general errors per Intake. The results shown in Figure 4-4 indicate that the average number of errors per Intake was 0.4 in Quarters 1, 2, and 3, and declined to 0.3 in Quarter 4. The three most common mistakes made by the interviewers on the CSFII 1996 are described below. These three errors account for 35 percent of the total general interviewer errors made during the CSFII/DHKS 1996.

1. **Am/pm Not Recorded.** Interviewers were required to record the time that the food was consumed, and they frequently failed to note whether it was am or pm.

2. **Combination Not Bracketed.** The interviewers were to bracket foods eaten as a combination. For example, if the interviewer recorded 1 cup of coffee on the first line of the Intake Questionnaire and 1 tablespoon of milk on the second, but did not bracket these food items, a coder did not know whether to code them separately or as a combination. This results in a loss of some information about foods consumed together.

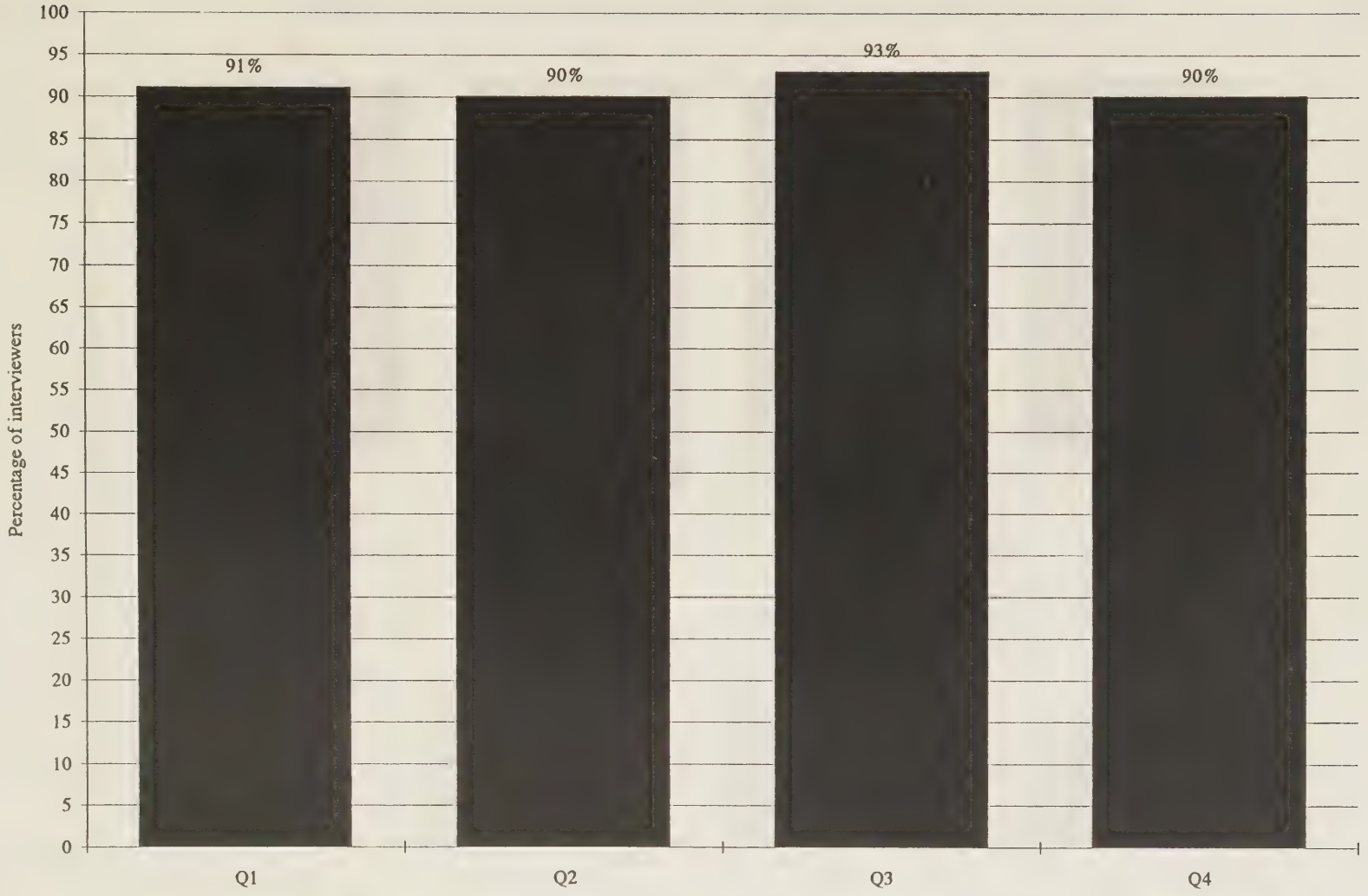


Figure 4-2. Percentage of interviewers with less than 20 percent missing food detail, across quarters

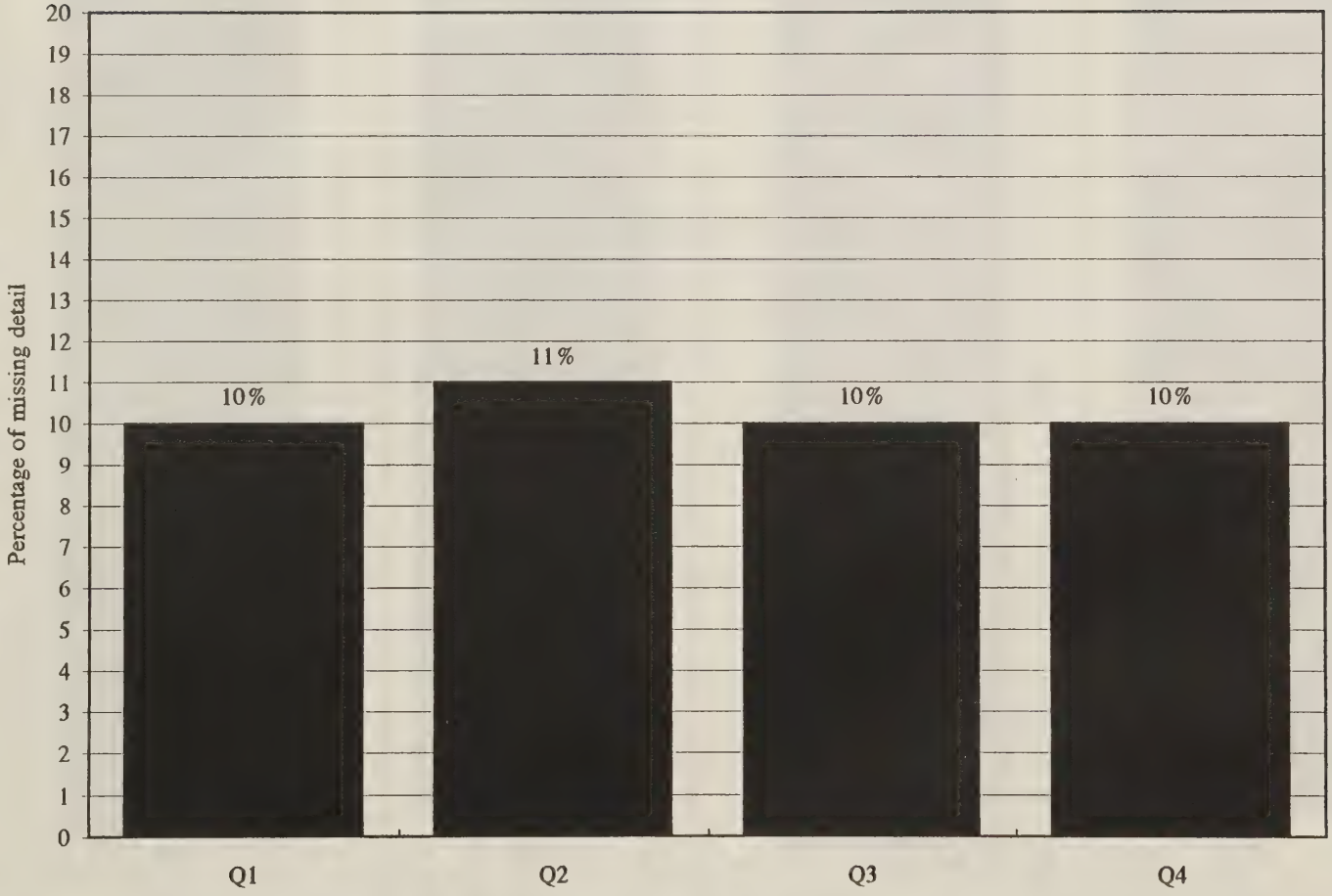


Figure 4-3. Percentage of missing food detail on Intake Questionnaires, across quarters

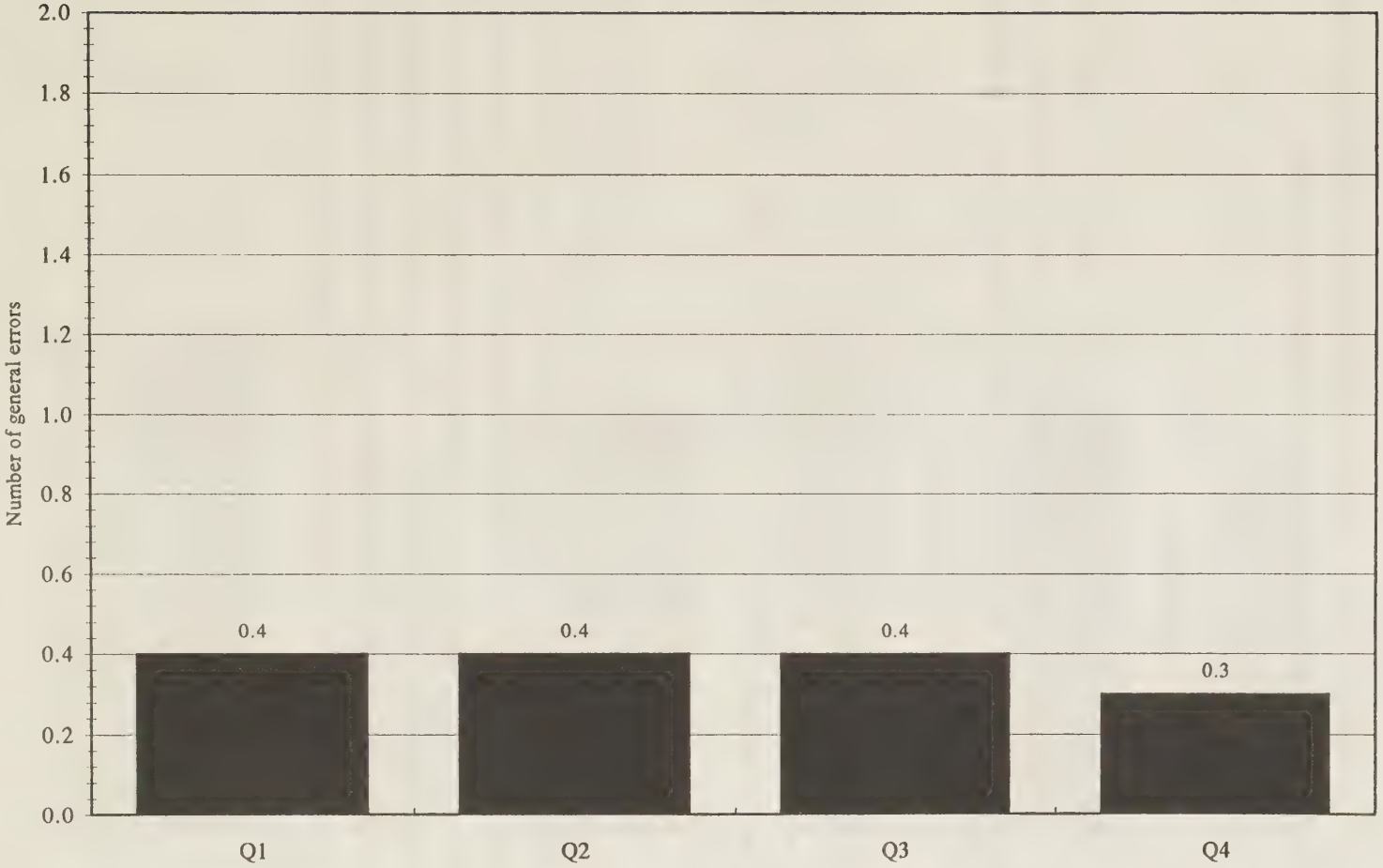


Figure 4-4. Average number of general errors per Intake, across quarters

3. **Difficult to Read.** Interviewers were instructed to write legibly, but some entries were not easily read.

As Figure 4-5 shows, the number of Intakes affected by the three most common interviewer errors remained fairly steady at between 6 percent to 8 percent of the Intakes.

4.5.2.5 Feedback to the Field Staff

Throughout 1996, the results of the review were sent to the regional supervisors. If an identified problem required immediate attention, an E-mail was sent to the supervisor and the interviewer. A photocopy of the completed questionnaire was also sent to the interviewer if it was necessary to illustrate the error.

Review forms were sent to the interviewer if the level of missing detail exceeded 20 percent and/or if the interviewer made three or more general errors. When new interviewers joined the survey, they received the review forms for all of their Intakes for their first quarter of work. If an interviewer's work was satisfactory, the review forms for subsequent quarters were printed out according to the guidelines specified above.

The automated review system also produced a series of reports by interviewer that helped Westat monitor the quality of each interviewer's work. One type of report showed the percentage of missing detail across all Intakes completed by an interviewer (see Attachment 4.B). The percentage of missing detail was calculated on the number of foods missing any detail, divided by the number of foods reported for an Intake. A summary report by interviewer was produced each week and was reviewed by the field director before being sent to the supervisors. Also, a summary report showing general errors by interviewer was produced each month (see Attachment 4.C). The summary reports helped to indicate when interviewer retraining was needed and to identify issues requiring discussion in a newsletter or a memo to the interviewers.

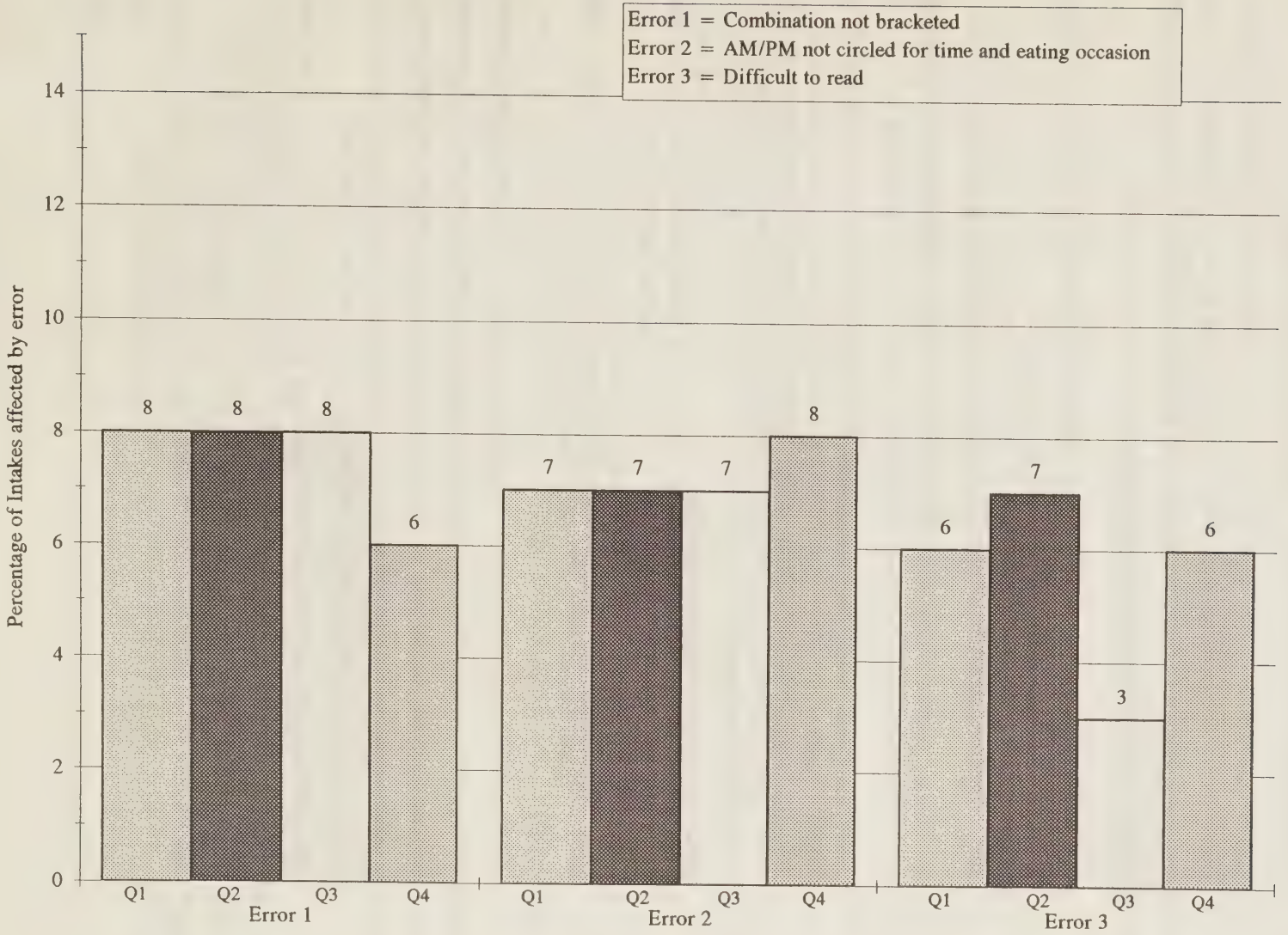


Figure 4-5. Type of error as a percentage of total Intakes, by quarter

4.5.3 Survey Net Coding of Intakes

4.5.3.1 Introduction

Food coding was accomplished using the Survey Net system. The system had many advantages over the hard-copy USDA Code Manual that was used on previous ARS food consumption surveys. The system included the following major features:

- Automated access to a very large food database and its component parts, including food and gram-weight descriptions and a recipe file;
- Searching capabilities that locate suitable food codes quickly and easily;
- Fast and accurate automated conversion of quantity information to gram-weight equivalents;
- The flexibility to change ingredients in standard recipes;
- A "copy" feature that allowed coders to copy foods within an Intake (for foods that an SP ate more than once) or between Intakes (for foods that were eaten by more than one SP in a household);
- The "unknown" feature, which allowed coders to enter food descriptions not available in the database and enabled other coders to use these descriptions; and
- Documentation of the decision-making process through a notepad feature, which enhanced communication between coders, supervisors, and ARS.

ARS updated Survey Net several times during the CSFII 1996 to incorporate new food information and to resolve unknown foods and recipe modifications The food database was upgraded three times to incorporate additions such as new foods, weights, and nutrient information. Forty-nine weekly food database updates were made that provided resolution about unknown foods and recipe modifications.

The database upgrades were accomplished during the coders' lunch time or in the evening when coders were not working and took less than a half-hour. The weekly updates were performed after the weekly delivery to ARS and required approximately a half-hour. The coders could continue processing Intakes immediately after the updates, and Intake processing continued without interruption. The system's flexibility and the ease with which it could be updated were significant benefits to Westat.

4.5.3.2 Number of Food Items Per Intake

Three different measures collected in the CSFII 1994-96 concerned the number of food items captured on an Intake Questionnaire:

1. The number of foods reported "above the line" on the Quick List,
2. The number of foods reported in the Food/Drink and Additions column, and
3. The number of foods coded in Survey Net.

Measures 1 and 2 above are based on what is reported by the SP. The foods "above the line" on the Quick List represent what the SPs reported on the first pass through the Intake. In the first pass, the interviewer asked the SPs to report a list of all foods eaten the previous day using any recall strategy they desire. The interviewer then got a more detailed list of foods by probing for additions, such as cream in coffee, giving the SPs an opportunity to recall food items they initially forgot. In the third and final pass, the interviewer reviewed with the SPs the list of foods reported to elicit more foods and eating occasions not previously mentioned. The number of foods reported in the Food/Drink and Additions column includes foods from the Quick List as well as those reported during more detailed probing in the second and third passes through the Intake.

The third measure, the number of foods coded in Survey Net, varies somewhat from what the SPs report. Some foods reported as a single item are coded as more than one food in Survey Net. For example, a sandwich may be reported as a single food in the Food/Drink and Additions column of the Intake; however, depending on the amount of detailed information obtained about the sandwich (i.e., type and amount of bread and filling), the sandwich may be coded with a single sandwich code or with separate codes for each ingredient.

The average numbers of reported and coded foods per Intake are listed in Table 4-1.

Table 4-1. Average number of food items per Intake

Intake	Reported on Quick List	Reported in Food/Drink and Additions Column	Coded in Survey Net
Day 1	9.2	12.2	14.2
Day 2	9.2	11.9	13.8

4.5.3.3 Coding and Processing Times for Intakes

As Table 4-2 indicates, the average total time to review, code, and perform postcoding activities on an Intake (70 minutes) was 12 minutes less in 1996 than in 1995. As shown in Figure 4-6, average monthly coder time for reviewing and coding an Intake was 42 minutes in February 1996 and declined to 36 minutes in January 1997.

Table 4-2. Average number of minutes to process Intake Questionnaires

	Original contract estimate	CSFII 1994	CSFII 1995	CSFII 1996
		All Intakes	All Intakes	All Intakes
Review and coding	56	59	47	42
Postcoding*	17	30	35	28
Total time	73	89	82	70

* Includes notepad review, verification and adjudication, and machine editing.

The average time to review and code an Intake (42 minutes) was 5 minutes less than for the 1995 survey. Machine edits and manual checks that were added to Intake postcoding activities for the CSFII/DHKS 1995 increased postcoding time between the 1994 and 1995 Surveys. These checks were also done for the CSFII/DHKS 1996, but they took less time due to an increase in staff proficiency; the average time to perform postcoding activities was 7 minutes less than for the 1995 Survey.

Westat is required to deliver data to ARS within 30 days of receipt at Westat. As Figure 4-7 shows, Westat easily met this requirement during most of 1996. For 46 weeks, Westat delivered Intakes within 30 days of receipt. For 3 weeks, Westat was unable to deliver Intakes within the 30-day timeframe. For the delivery on October 29, 1996, Westat exceeded the 30-day requirement because a machine editor temporarily left for a family emergency. As a result, many documents, including Intake Questionnaires, were held at the machine-editing processing step longer than usual. At the end of December, ARS asked Westat to hold a delivery because of a holiday. This affected the following delivery on January 7, causing it to exceed 30 days from receipt. On January 14, Westat delivered Intakes that averaged more than 30 days from receipt to delivery because of the decrease in machine-editing staff hours during the holiday season.

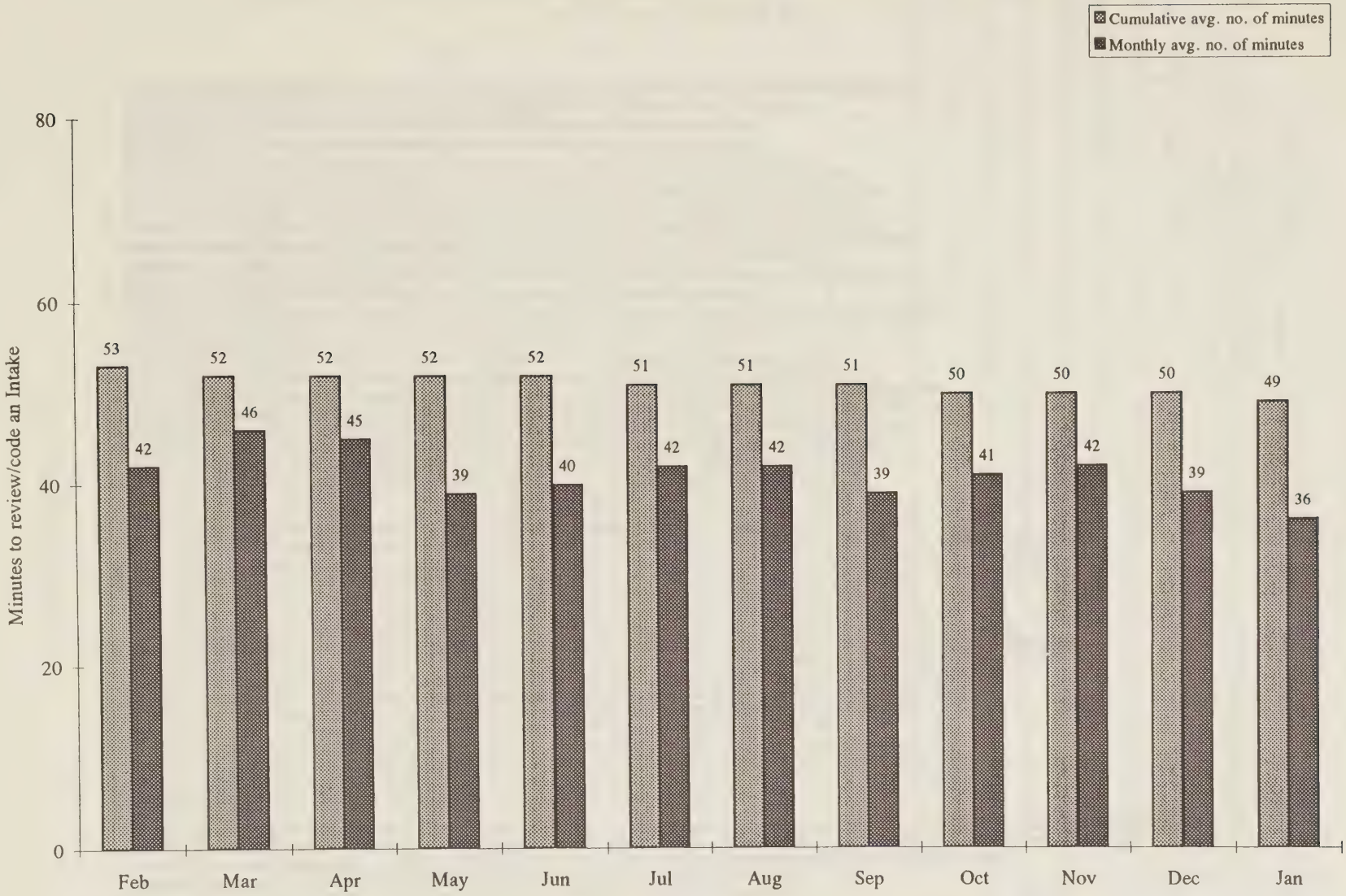


Figure 4-6. Coder times for reviewing and coding Intakes

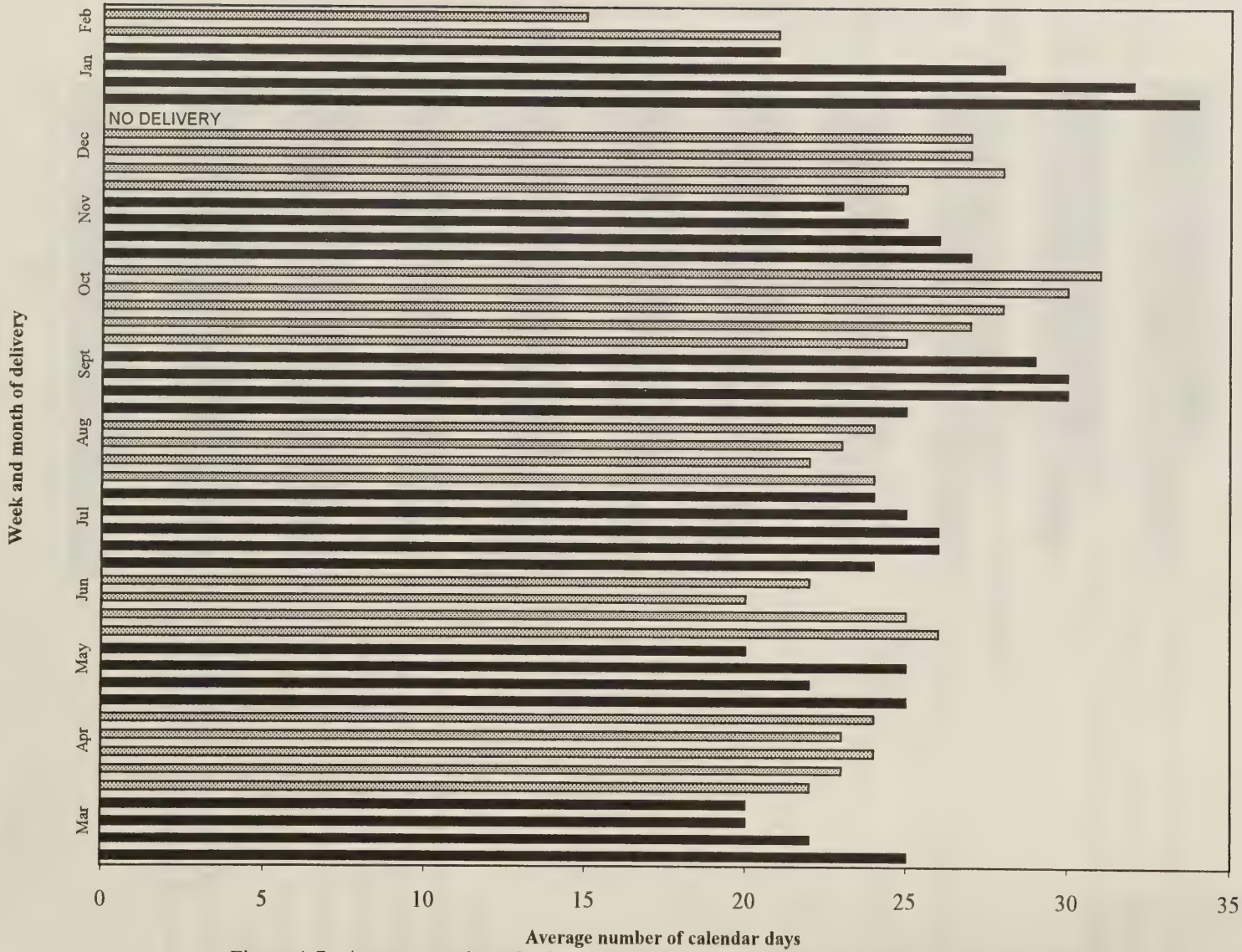


Figure 4-7. Average number of calendar days to process Intakes, by week and month of delivery

Table 4-3 shows the average number of calendar days to move Intake Questionnaires through each processing step and the overall processing time, which is the average number of days between an Intake's receipt at Westat and its transmission to ARS, including time elapsed for all processing steps. The time between Intake receipt and delivery to ARS averaged 26 days for the CSFII 1996. The adjudication process took 2 days more in 1996 than in 1995. The additional days are attributable to the changes in the receipt control staff and do not reflect adjudication problems. Tracking Intakes through adjudication was a multistage process requiring flagging Intakes, entering the number of coder errors and coded foods, and grouping the Intakes into larger work units (key batches) for data entry. Inexperienced receipt clerks took longer to track Intakes through adjudication. The contractual requirement to process and transmit all 1996 data by February 25, 1996 was met. All data were delivered to ARS by February 11, 1996, 2 weeks before the deadline. The processing steps shown in this table are described briefly below.

- **Reviewing and Survey Net Entry.** Documents were reviewed to ensure that they met ARS's minimum criteria, and field staff feedback and entries were made into Survey Net. Non-food sections of the Intake Questionnaires were prepared for production keying.

- **Verification and Double Entry.** For 10 percent of the Intakes, a second coder re-entered the intake data into Survey Net and reviewed the manually coded portions of the document.

- **Manual edits.** All Intakes received a line-by-line review of food item information; time and eating occasion; food description and amount; and food source -- food eaten at home, food from home, or food away from home.

- **Survey Net Adjudication.** The supervisor and senior coders reviewed a report comparing the two sets of Survey Net entries, corrected entries if necessary, and tabulated the number of coder errors. In addition, the supervisor reviewed 100 percent of the Intakes in Survey Net for notepad entries, newly modified recipes, and unknown foods. (Attachment 4.D contains the shell of the Survey Net adjudication report.)

- **Data Entry.** Non-food data on the Intakes were keyed in a production data entry environment.

- **Machine Edit.** Non-food data on the Intakes were cleaned with machine-editing programs.

- **Transmittal to ARS.** Data were electronically transmitted to ARS once a week.

Table 4-3. Average elapsed time (days) for processing Day 1 and Day 2 Intakes

Processing step	Days to process
Reviewing and Survey Net entry	7
Verification and double entry	1
Survey Net adjudication	7
Data entry	5
Machine edit	6
Transmittal to ARS	--
Overall processing time	26

4.5.3.4 Quality Control of Survey Net Coding

To verify food coding, 10 percent of the coded Intakes were re-entered into Survey Net by a second coder. A report comparing the two versions was used by the coding supervisor to adjudicate the discrepancies. The results of the adjudication process were entered into the FTS, and reports of error rates by coder were generated.

Two separate error rates were calculated for the Survey Net entries: an error rate for the food data and another for the cover sheet data (information such as SP identification number and age, interviewer name, and date of interview). Both error rates were calculated by dividing the number of fields with erroneous entries by the total number of fields. (Definitions of the fields used to determine the error rates appear in Attachment 4.E.)

As shown in Table 4-4, the error rates were extremely low, with Intake cover sheet errors averaging 0.2 percent and Survey Net coding errors averaging 0.1 percent. Discrepancy reports and error rates were regularly reviewed with individual coders and at biweekly meetings where all questions and problems were discussed. All notepad entries, modified recipes, and unknown food entries were also reviewed and corrected by the supervisor.

Table 4-4. Survey Net coder error rates

Intake	Coder error rate (percentage of fields with errors)	
	Cover sheet data	Food data
Day 1	0.2	0.1
Day 2	0.3	0.1
Average	0.2	0.1

ARS reviewed all Intakes with notepad entries, unknown foods or weights, and newly created recipe modifications. ARS provided regular written feedback to the data preparation manager. The feedback forms from ARS contained comments on coder errors for each batch of Intakes reviewed. The batches were identified by coder ID, and coder-specific comments were given to the appropriate coder for reference. The sets of comments were compiled in a notebook for review by all coders. Comments from ARS's feedback forms were often a source of agenda items for the coder meetings, which ARS attended periodically throughout the year.

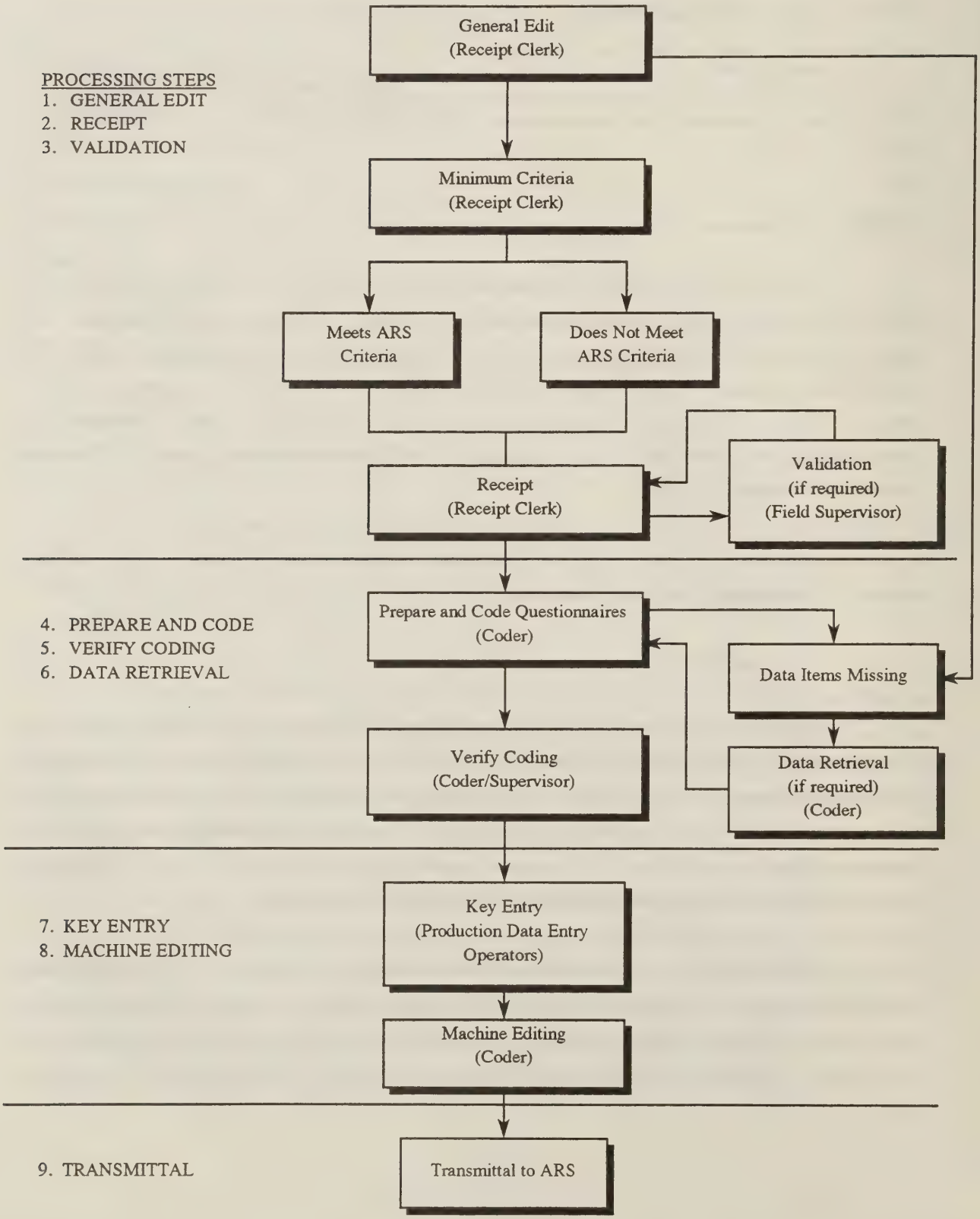
4.6 Processing Non-Intake Documents

4.6.1 Processing Steps

Non-Intake documents (the Screener, Household Questionnaire, DHKS Questionnaire, Household Folder, NIRF, DHKS Folder, and DHKS NIRF) followed a slightly different processing path than Intake documents. Figure 4-8 shows the data flow and processing steps for non-Intake data. At receipt, non-Intake documents underwent a General Edit to determine whether the document met ARS's minimum criteria for completeness. The document was then either entered into the FTS (if it satisfied the minimum criteria) or held for problem resolution (if it did not meet the criteria).

Reviewed and receipted documents that were flagged for validation were photocopied and sent to the field supervisors, who conducted the validation interviews. Documents proceeded to manual coding, and 10 percent underwent coding verification. Coded documents were then sent to Westat's data entry shop for key entry. Keyed data were machine edited until they were completely cleaned and ready for delivery to ARS.

Figure 4-8. Data flow and processing steps for non-Intake data



4.6.2 Review of Non-Intake Documents

The General Edit determined whether a non-Intake document met the minimum criteria established by ARS. To be considered complete, each document had to include the following information:

Screener/Household Questionnaire

1. Sample descriptive data (i.e., segment identification and housing unit identifiers);
2. For participating households, income information from the Screener (if necessary);
3. Complete information on the household enumeration;
4. The date of the interview;
5. A response to the Screener question concerning the number of people in the household; and
6. A sufficient level of detail to permit the coding of at least 85 percent of the appropriate questions.

DHKS Questionnaire

1. Sample descriptive data (i.e., segment identification and housing unit identifiers);
2. The SP's first name or another suitable designation; and
3. A sufficient level of detail to permit the coding of at least 85 percent of the appropriate questions.

Household and DHKS Folders

1. The results, date, and time of each contact attempt (including the interview date and time).

The General Edit of the Screener also included a review of whether the SP was selected properly. If an SP had been selected in error, the field supervisor and the interviewer were notified by E-mail and corrective action was taken if possible. If the Screener failed to meet the minimum criteria, a coder attempted data retrieval with the interviewer. Approximately 1.0 percent of all non-Intake documents required data retrieval. Ninety-nine percent of the data retrieval attempts for those documents were successful. The General Edit forms are included in Attachment 4.A.

4.6.3 Processing of Non-Intake Documents

Processing of non-Intake documents included manual coding and data entry in Westat's production data entry shop. Manual coding involved reviewing interviewer entries in the completed documents and preparing them for data entry. This coding included correcting interviewer errors, zero-filling, designating fields to be skipped, entering codes for "don't know" and "refused" responses, and translating marginal notes into codes. Ten percent of the manual coding of non-Intake documents was verified through dependent review (i.e., by having a second coder visually review the manual coding and identify errors).

The non-Intake documents were then key entered using programs developed with the Tartan system of data entry hardware and software. Data entry into the Tartan system was 100 percent verified through a second entry by a different operator.

After the non-Intake items had been entered, the data were machine edited using programs developed with COED, a Westat software system for cleaning survey data. COED was first used to create a codebook that included the file layouts, acceptable codes for each field, skip pattern specifications, and special editing instructions for use in manual coding. The source code for the codebook was then used to generate machine-editing programs, which verified that keyed data were within the acceptable ranges for a particular field and that skip patterns had been followed correctly. An extensive set of special programs were also written to check the relationships between the FTS and COED data and between COED data sets (for the non-Intake documents) or between the FTS and Survey Net data (for the Intake documents). For example, a program was written to check that the FTS disposition code for each document matched what was in the COED records. An additional check compared information in the Household Questionnaire and the Screener to ensure that individuals eligible for school breakfast and lunch programs were 5 to 18 years old. When discrepant data had been resolved, the data were delivered to ARS. Non-Intake data were electronically transmitted to ARS once a week.

The quality of non-Intake coding improved throughout the survey year. Verifiers and machine editors gave the coders direct feedback on their errors. In addition, regular coder meetings were held to discuss coding decisions, code changes, and feedback from ARS's review of the data.

4.6.4 Coding and Processing Times for Non-Intake Documents

Coders documented the number of hours they worked each day and the number of non-Intake documents they reviewed and coded. During the 1996 survey year, the coding of a non-Intake document required an average of 4 minutes. The non-Intake documents were delivered to ARS within 30 days of their receipt at Westat.

Table 4-5 shows that the average number of calendar days required to move the non-Intake documents through all processing steps ranged from 21 to 25 days. In 1996, Westat met the contractual requirement to deliver documents within 30 days of receipt. However, Westat lost efficiency in moving documents through processing because of the unexpected turnover in receipt clerks.

Table 4-5. Average elapsed time (days) for processing Screener, Household Questionnaire, Household Folder, DHKS Questionnaire, and DHKS Folder

Processing step	Document			
	Screener	Household Questionnaire	Household Folder	DHKS*
Coding	9	6	9	7
Coding verification	<1	<1	<1	<1
Data entry	9	8	9	9
Machine edit	6	6	6	6
Transmittal to ARS	--	--	--	--
Overall processing time	25	21	25	22

*Questionnaire and Folder.

The processing steps shown in this table are described briefly below.

- **Coding.** Coding consisted of manually writing into the questionnaire or form the codes or data that were to be key entered.
- **Coding Verification.** Verification was the process of coders dependently reviewing, correcting, and noting errors in each other's work. (Adjudication is not required with dependent verification.)
- **Data Entry.** Data were keyed in a production data entry environment.

- **Machine Edit.** Keyed data were cleaned with separate machine-editing programs.

- **Transmittal to ARS.** Data were transmitted electronically to ARS once a week. Hard-copy documents matched to the electronic data were delivered to ARS on the same day.

4.7 Delivery of Data to ARS

Electronic data with matching hard-copy documents were delivered to ARS every week. A list of batches by document type was also included to identify the contents of the delivery. Electronic data were transmitted by cc:Mail.

Modems and regular telephone lines were used to transmit data and other information during the CSFII/DHKS 1996. The cc:Mail and cc:Mail Remote packages were used for the following transactions:

1. Daily delivery of FTS files;
2. Weekly delivery of data files and reports;
3. Transfer of entire files of recipes and unknown foods for purposes of comparison; and
4. Miscellaneous communications.

Daily Deliveries

A snapshot of the FTS files was produced each day and transmitted electronically to ARS. The system automatically compressed a copy of the FTS files into a zip file, built the text of the cc:Mail message listing the files being delivered, assembled the text and the files into a single package, and sent it to the ARS mailbox on Westat's network. The entire process took less than 5 minutes. When they were ready to receive the message, the staff at ARS used cc:Mail Remote to connect to Westat's network and download the message. The process worked well at both Westat and ARS.

Weekly Deliveries

Weekly deliveries of data files and reports were scheduled for the Tuesday of every week. The data delivery consisted of the following:

- A cover memo;
- Survey Net files;
- Flat files containing non-food data from the Day 1 and Day 2 Intake Questionnaires; data from the Screener, Household, and DHKS Questionnaires; data from the Household Folder; and a file named CONTENTS, which listed the files being delivered with that week's message;
- Hard-copy data matched to the data in the flat files; and
- Hard-copy problem cards, code changes, decision logs, and keying error reports.

At times, more than 200 files (including reports and Survey Net index files, recipe files, unknown food files, and various flat files) were transmitted during a single week. An automated process examined the FTS database for files marked as ready for delivery and produced (1) a list for use in assembling hard-copy documents to be delivered to ARS and (2) a set of computer files that were used by the compression routine to determine the computer (VAX or PC file server), directory, and name of each file in the shipment. The hard-copy list of delivery files was reviewed and approved by the data preparation manager before a clerk created the cc:Mail delivery message.

The system built the draft cc:Mail message, assembled the zip files, created the contents list, and attached the files to the message for review. The message and files were then transmitted to ARS's mailbox on the Westat network.

5. DOCUMENTATION OF PROBABILITIES OF SELECTION AND CALCULATION OF SAMPLING WEIGHTS

In general, the analysis of survey data from complex sample designs requires the use of weights to compensate for variable probabilities of selection, differential nonresponse rates, and possible deficiencies in the sampling frame (e.g., undercoverage of certain population groups). For the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS), the overall probabilities of selection were designed to vary by sex, age, and income level in order to meet specified precision goals for sex-age-income subgroups. For the CSFII/DHKS 1996 (the third of 3 survey years), these probabilities ranged from approximately 1 in 70,000 for females aged 30 to 39 years to approximately 1 in 9,000 for low-income males aged 50 to 59 years. Also, the occasional use of special subsampling procedures to control the workload in a few area segments, and the adjustment of sampling rates in the second half of 1996 (as described in Section 2.5.1) introduced some additional variation in the overall selection probabilities.

The base weight associated with a sample person (SP) is equal to the reciprocal of the probability of including that person in the sample. The base weights inflate the sample to the population if there is no nonresponse or noncoverage in the survey. For the CSFII/DHKS, nonresponse can occur at different stages of data collection, for example, (1) before the enumeration of SPs in the household, (2) after household enumeration and the selection of SPs but before the completion of the Day 1 Intake interview, (3) after the Day 1 Intake interview but before the completion of the Day 2 Intake interview, and (4) after the Day 1 Intake interview but before the completion of the DHKS interview. In addition, nonresponse to the Household Questionnaire can occur after the selection of SPs in eligible households. Noncoverage arises when some members of the survey population have no chance of being selected into the sample. With the CSFII/DHKS, noncoverage can occur from incomplete listings of dwelling units (DUs) in selected segments or incomplete listings of persons within DUs.

To compensate for nonresponse and noncoverage, the CSFII/DHKS 1996 data were weighted in the following steps. First, a base weight equal to the reciprocal of the probability of selection was assigned to each SP selected for the study. The base weights were then adjusted for nonresponse within homogeneous classes defined by variables that were determined to be correlated with response rates. Finally, the nonresponse-adjusted weights were calibrated to population estimates from the March 1996 Current Population Survey (CPS) to compensate for random variation in the observed sample counts and possible undercoverage of certain groups in the area sample frame.

As described in detail in the following sections, two sets of weights were calculated: a set of weights for the Day 1 Intake interviews and another set for the DHKS interviews. In addition, jackknife replicate weights were calculated for each of these two data sets to facilitate variance estimation.

5.1 Development of Base Weights

The base weight associated with an SP is the reciprocal of the overall probability of including that person in the study. For the CSFII/DHKS 1996, SPs were selected through a complex multistage sample design involving the selection of primary sampling units (PSUs), area segments within PSUs, DUs within segments, and finally persons (SPs) within households. Consequently, the following components were required to calculate the overall probabilities of selection:

1. The probability of selecting the PSU (P_h);
2. The probability of selecting the segment (or chunk) within the PSU (S_{hi});
3. The probability of selecting the household within the segment (H_{hij});
4. The probability that a household identified through the "missed structure procedure" was retained for the sample (H^R_{hij});
5. The probability of selecting an eligible person (SP) in sex-age-income domain α within the household for the Intake interviews ($I_{\alpha hijk}$); and
6. The probability of selecting an eligible respondent within the household for the DHKS ($1/q_j$).

It should be noted that, in a few instances, a sampled segment was so large that it was divided into two or more subsegments of approximately equal size (called "chunks"). One subsegment, within which households were to be listed, was then randomly selected with probability proportional to estimated size. In these cases, the chunk was considered to be the segment, and the S_{hi}'s as defined above reflected the probability of selecting the given chunk within the original segment. In other words, if S^o_{hs} was the probability of selecting the original segment and C_{hsi} was the probability of selecting the chunk within the segment, the overall probability of selecting chunk i in segment s was $S_{hi} = S^o_{hs} \; C_{hsi}$.

Also, note that the factor H_{hij}^{R} applies to a few segments in which the number of DUs to be sampled through the missed structure procedure exceeded 10. In such cases, a random subsample of DUs was retained in the study. DUs identified through the missed structure procedure were subsampled solely to control the interviewing workload within the segment, and subsampling applied only to DUs identified through the missed structure procedure. Any additional DUs identified through the related but distinct "missed DU" procedure were not subsampled (i.e., all such DUs were retained in the sample).

The goal of sampling was to select self-weighting samples of SPs within each sex-age-income domain. Thus, in segments for which $H_{hij}^{R} = 1$, the overall probability of selecting person k in sex-age-income domain α in household j in segment (chunk) i in PSU h is expressed as follows:

$$\begin{aligned} P_{\alpha hijk} &= P_h S_{hi} H_{hij} I_{\alpha hijk} \\ &= 1/K_{\alpha}, \end{aligned} \tag{1}$$

where K_{α} depends on the sex-age-income domain to which the SP was assigned at the time of screening and on the quarter of data collection. The term H_{hij} in formula (1) is the within-segment sampling rate used to select households in the segment (or chunk) and was designed to yield a self-weighting national sample of approximately 12,000 households. The term K_{α} in formula (1) is the reciprocal of the overall rate of selecting persons in domain α and can be thought of as the "desired" base weight. The values of K_{α} used in the third year of the study are summarized in Tables 5-1A and 5-1B by sex-age-income domain.

The actual base weight for an SP in domain α was computed as follows:

$$w_{\alpha hijk}^{\text{base}} = K_{\alpha}/H_{hij}^{R}, \tag{2}$$

which in almost all cases is equal to the desired base weight.

It should be noted that the weights given by formula (2) applied to SPs 1 year of age or older. For infants under 1 year of age, the weights were derived differently. This is because infants under 1 year of age were included in the CSFII/DHKS 1996 sample whenever another eligible SP (1 year old or older) was selected from the household. Therefore, the probability of selecting an infant for the CSFII/DHKS 1996 was the same as the probability of retaining that household for the CSFII/DHKS.

Table 5-1A. Desired SP base weights and within-household sampling rates for the first half of the CSFII/DHKS 1996, by analytical domain

Analytical domain	Income group based on 130% of Federal poverty guidelines	Sex	Age group	Probability of selecting an SP within household ($I_{\alpha hijk}$)	Desired base weight (K_α)
1	All income	Male	1 to 2	0.604649	14,182.27
2			3 to 5	0.263103	32,592.93
3			6 to 11	0.263103	32,592.93
4			12 to 19	0.208333	41,161.39
5			20 to 29	0.233604	36,708.59
6			30 to 39	0.208333	41,161.39
7			40 to 49	0.181751	47,181.49
8			50 to 59	0.263103	32,592.93
9			60 to 69	0.389540	22,013.91
10			70 +	0.263103	32,592.93
11		Female	1 to 2	0.749717	11,438.04
12			3 to 5	0.446578	19,202.21
13			6 to 11	0.263103	32,592.93
14			12 to 19	0.181751	47,181.49
15			20 to 29	0.208333	41,161.39
16			30 to 39	0.141585	60,566.36
17			40 to 49	0.181751	47,181.49
18			50 to 59	0.208333	41,161.39
19			60 to 69	0.263103	32,592.93
20			70 +	0.141585	60,566.36
21	Low income	Male	1 to 2	0.604649	14,182.27
22			3 to 5	0.263103	32,592.93
23			6 to 11	0.329948	25,989.84
24			12 to 19	0.263103	32,592.93
25			20 to 29	0.233604	36,708.59
26			30 to 39	0.446578	19,202.21
27			40 to 49	0.604649	14,182.27
28			50 to 59	0.781471	10,973.27
29			60 to 69	1.000000	8,575.29
30			70 +	0.389540	22,013.91
31		Female	1 to 2	0.749717	11,438.04
32			3 to 5	0.446578	19,202.21
33			6 to 11	0.329948	25,989.84
34			12 to 19	0.263103	32,592.93
35			20 to 29	0.208333	41,161.39
36			30 to 39	0.233604	36,708.59
37			40 to 49	0.329948	25,989.84
38			50 to 59	0.483657	17,730.10
39			60 to 69	0.389540	22,013.91
40			70 +	0.181751	47,181.49

Table 5-1B. Desired SP base weights and within-household sampling rates for the second half of the CSFII/DHKS 1996, by analytical domain

Analytical domain	Income group based on 130% of Federal poverty guidelines	Sex	Age group	Probability of selecting an SP within household ($I_{\alpha hijk}$)	Desired base weight (K_α)
1	All income	Male	1 to 2	0.685310	12,513.01
2			3 to 5	0.283406	30,257.97
3			6 to 11	0.152497	56,232.52
4			12 to 19	0.228027	37,606.47
5			20 to 29	0.262264	32,697.17
6			30 to 39	0.195357	43,895.48
7			40 to 49	0.152497	56,232.52
8			50 to 59	0.240183	35,703.15
9			60 to 69	0.366844	23,375.85
10			70 +	0.317702	26,991.61
11		Female	1 to 2	0.738131	11,617.57
12			3 to 5	0.460819	18,608.80
13			6 to 11	0.152497	56,232.52
14			12 to 19	0.195357	43,895.48
15			20 to 29	0.240183	35,703.15
16			30 to 39	0.131874	65,026.39
17			40 to 49	0.179909	47,664.60
18			50 to 59	0.195357	43,895.48
19			60 to 69	0.335434	25,564.76
20			70 +	0.131874	65,026.39
21	Low income	Male	1 to 2	0.685310	12,513.01
22			3 to 5	0.283406	30,257.97
23			6 to 11	0.460819	18,608.80
24			12 to 19	0.228027	37,606.47
25			20 to 29	0.262264	32,697.17
26			30 to 39	0.559546	15,325.44
27			40 to 49	0.366844	23,375.85
28			50 to 59	1.000000	8,575.29
29			60 to 69	0.765846	11,197.15
30			70 +	0.317702	26,991.61
31		Female	1 to 2	0.738131	11,617.57
32			3 to 5	0.460819	18,608.80
33			6 to 11	0.179909	47,664.60
34			12 to 19	0.283406	30,257.97
35			20 to 29	0.240183	35,703.15
36			30 to 39	0.262264	32,697.17
37			40 to 49	0.559546	15,325.44
38			50 to 59	0.738131	11,617.57
39			60 to 69	0.335434	25,564.76
40			70 +	0.131874	65,026.39

The probability of retaining a household for the CSFII/DHKS 1996 depended on the income level and composition of the household. For example, screened households containing any low-income males 50 to 59 years old were retained for the second half of the CSFII/DHKS 1996 with conditional certainty. Thus, for such households, the probability of selection is simply $f = (8{,}575.29)^{-1}$, where f is the overall rate at which households were selected for screening in 1996. On the other hand, households with males 1 to 2 years of age but no low-income males between the ages of 50 to 59 years had a somewhat smaller chance of being retained for the CSFII/DHKS. In general, the probability of retaining households for the CSFII/DHKS was equal to $A_i f$, where A_i is the expected proportion of households from which SPs with specified characteristics would be selected. Within a given household, A_i is the maximum within-household selection probability among the individuals in the household. The calculation of the base weight for infants was accomplished by simply assigning the minimum base weight of the other SPs in the household to the sampled infant.

Table 5-2 summarizes the weighted counts of SPs selected for the study, by sex and age. The corresponding March 1996 CPS estimates are also given in this table for comparison purposes. Note that the weighted counts in this table include both respondents and nonrespondents to the Day 1 Intake. Also, note that the "age" used to classify SPs in this table was based on Screener information, which in a few cases differed from the age given in the Day 1 Intake interview.

The base weights given in formula (2) depend only on the values of K_α and H^R_{hij}. However, for documentation purposes, all of the components entering into the calculation of the base weights are recorded in the weight files, including those summarized in the following sections.

5.1.1 PSU Selection Probability

With one PSU sampled per stratum, the probability of selecting PSU h in stratum s is equal to

$$P_h = \frac{N_{sh}^{1990}}{\sum_{h=1}^{L_s} N_{sh}^{1990}}, \qquad (3)$$

where N_{sh}^{1990} is the 1990 population of PSU h in stratum s and L_s is the number of PSUs in the frame in stratum s. For 24 of the 62 PSUs in the CSFII/DHKS sample, $P_h = 1$.

Table 5-2. Weighted counts of SPs selected for Day 1 Intake interviews by sex and age, and corresponding March 1996 CPS estimates

Sex	Age (reported in Screener)	March 1996 CPS estimate	Number of SPs selected for Day 1 Intake	Weighted* count of SPs
Male	less than 1	1,982,389	78	1,675,831
	1 to 2	4,139,485	228	3,116,727
	3 to 5	6,338,161	192	6,344,647
	6 to 11	12,146,170	304	10,526,198
	12 to 19	15,398,664	300	11,779,340
	20 to 29	18,519,928	405	14,269,032
	30 to 39	21,727,153	486	18,826,740
	40 to 49	19,100,366	355	16,403,079
	50 to 59	11,914,609	341	10,146,554
	60 to 69	9,100,834	357	7,153,609
	70+	8,738,278	247	7,097,639
Female	less than 1	1,926,224	60	1,284,765
	1 to 2	3,888,578	238	2,803,508
	3 to 5	6,088,633	274	5,306,464
	6 to 11	11,575,982	272	10,718,176
	12 to 19	14,832,200	305	12,937,565
	20 to 29	18,550,039	389	15,256,306
	30 to 39	22,204,721	339	19,241,100
	40 to 49	19,714,365	416	17,766,546
	50 to 59	12,749,326	298	10,934,059
	60 to 69	10,426,529	308	8,561,098
	70+	13,171,583	194	11,562,361
Total		264,234,218	6,386	223,711,345

*Weights are the Day 1 Intake base weights described in Section 5.1.

5.1.2 Segment Selection Probability

The probability of selecting segment i in PSU h is given by

$$S_{hi} = \left(\frac{12 D_{hi}^{1990}}{\sum_{i=1}^{N_h} D_{hi}^{1990}} \right), \tag{4}$$

where D_{hi}^{1990} is the 1990 number of DUs in segment i in PSU h and N_h is the total number of segments in the PSU. The 12 in the numerator of S_{hi} reflects the fact that exactly 12 segments were selected from each PSU for the third year of the study.

Some of the sampled segments were so large that an additional stage of sampling was introduced to reduce the amount of listing required. In general, these large segments were divided into two or more smaller chunks of approximately equal size, and one chunk was selected with probability proportional to estimated size. Of the 744 segments selected for the CSFII/DHKS 1996, 58 were chunked according to these procedures. For these 58 segments, the overall probability of selecting chunk c in segment i in PSU h is

$$S_{hic} = \left(\frac{12 D_{hi}^{1990}}{\sum_{i=1}^{N_h} D_{hi}^{1990}} \right) \left(\frac{D_{hic}^{\text{est}}}{\sum_{c=1}^{m_{hi}} D_{hic}^{\text{est}}} \right), \tag{5}$$

where D_{hic}^{est} is the estimated size of the c-th chunk in the segment and m_{hi} is the total number of chunks in the segment. For these cases, the chunk is essentially the segment, so that the subscript c can be dropped without ambiguity. All chunked segments are flagged as such in the weight files, and the values of D_{hic}^{est} are provided for them.

5.1.3 Household Selection Probability

Within each selected segment (or chunk), DUs were listed and subsampled at rates designed to yield a self-weighting sample of approximately 12,000 DUs. That is, listed DUs in segment i in PSU h were subsampled at a rate of

$$H_{hij} = \frac{r}{P_h S_{hi}}, \tag{6}$$

where

$$r = \frac{12{,}000}{\sum_{h=1}^{62} \sum_{i=1}^{12} D_{hi}^{L} / (P_h S_{hi})} \tag{7}$$

D_{hi}^{L} = the number of listed DUs in segment i in PSU h.

5.1.4 Probability of Retaining Missed Dwelling Units

Westat's missed structure and missed DU procedures were designed to identify any DUs that may have been missed in the listing process (see Section 2.4.4). It can be shown that these procedures will yield a sample of DUs that have the same overall probabilities of selection as the originally listed DUs (e.g., see CSFII/DHKS Project Memos #102 and 501). However, the number of missed DUs in a segment can occasionally be large, especially if new construction has occurred since the original listing was prepared. In such cases, it was desirable to subsample them to control the workload in the segment. In general, if the number of DUs to be retained by the missed structure procedure was more than 10, a random subsample of at least 10 missed DUs was selected for the study. Thus,

$$H_{hij}^{R} = \begin{cases} \dfrac{n}{D_{hi}^{\text{missed}}} & \text{if } D_{hi}^{\text{missed}} > 10, \\ 1, & \text{if } D_{hi}^{\text{missed}} \leq 10, \end{cases} \tag{9}$$

where D_{hi}^{missed} = the number of missed DUs in the segment that were identified to be retained by missed structure procedure, and n is the number subsampled. The subsampling procedure described above was

required in 8 of the 282 segments for which the missed structure procedure was applied. (Any additional DUs found through the related but distinct missed DU procedure were not subsampled; that is, all such DUs were retained in the sample. Hence, no weight adjustments were required for these DUs.)

5.1.5 SP Selection Probability

The fourth stage of sampling involved the selection of members of a household for inclusion in the CSFII/DHKS. As described in Section 2.5, the screened households were randomly assigned to one of several nonoverlapping subsets. Within a particular subset, all members of a set of specified sex-age-income domains were included in the CSFII/DHKS. Application of these rules had the effect of designating a random subset of the total household sample for selecting members of each sex-age-income domain. In other words, $I_{\alpha hijk}$, the probability of selecting the k-th SP in domain α in household j in segment i in PSU h, was simply the proportion of DUs in the total sample from which an SP in domain α could have been sampled. The values of $I_{\alpha hijk}$ are summarized in Tables 5-1A and 5-1B.

Finally, among SPs 20 years or older in the household who completed the Day 1 Intake interview without the assistance of a proxy, one SP was randomly selected for the DHKS. Restricting the DHKS selection to SPs who completed the Day 1 Intake interview ensured the maximum linkage between the Intake and DHKS items. For SPs who were selected for the DHKS, the corresponding within-household selection probability was $I_{\alpha hijk}/q_j$, where q_j is the number of SPs 20 years or older in the household who completed the Day 1 Intake interview without the assistance of a proxy.

5.1.6 Imputing Classification Variables Required for Weighting

The assignment of base weights as described in the preceding sections required that sex, age, and income status be known for all SPs. For a small number of cases (all nonrespondents), one or more of the required variables were not available in the Screener Questionnaire. For these cases, values of the missing variables were imputed by the methods described below.

For the 131 SPs for which age was missing, an age range (e.g., "under 18" or "over 65") was often available in the abbreviated enumeration table ("neighbor information") of the Screener Questionnaire. This information was used to impute age by the following "hot-deck" procedure. First, a listing of the

6,386 SPs, sorted by message number and randomly within message number, was prepared. In the sorted listing, each case having a missing value for age was located. For each of these cases, the next listed case that was assigned the same message number and that satisfied the age range recorded in the abbreviated enumeration table for the case with missing age was also identified. The age recorded for the latter cases (referred to as "donor records") was then assigned to the corresponding record with the missing age.

Finally, income level was imputed for four SPs. To be consistent with the procedures developed for selecting SPs when income information was not obtained during screening (see Section 2.5.3), the imputation was accomplished by inspecting the information recorded by the interviewer in the Household Folder to determine whether or not the household included children under 6 years of age and no males over 18 years. If the Household Folder information indicated this to be the case, the household and its members were coded as low income for weighting purposes. Otherwise, the household was imputed as non-low income for weighting purposes.

5.2 Development of Nonresponse Adjustments

Unit nonresponse (i.e., whole questionnaire nonresponse) occurs when an eligible SP fails to respond to the survey for any reason. As described below, separate adjustments were made to compensate for nonresponse in the Screener interview, the Day 1 Intake interview, and the DHKS interview. For a given stage of adjustment, the general approach was to divide the sample into a number of homogeneous weighting classes, within which nonresponse-adjusted weights were calculated by multiplying the base weights by the corresponding inverse of the weighted response rate for the class.

5.2.1 Nonresponse Adjustments for the Screener

Initially, each of the 12,565 DUs selected for the second year of the study was assigned to one of the three Screener response status groups specified in Table 5-3. Note that all of the screener nonrespondents (S08-S13) were known not to reside in vacant or non-DUs (i.e., they were not out of scope) at the time of screening.

Next, each DU was assigned a Screener base weight, w_i^{scr}, defined as follows:

$$w_i^{scr} = \frac{8{,}575.29}{H_i^{ret}}, \tag{10}$$

where H_i^{ret} is the probability of retaining a DU identified through the missed structure procedure. Note that 8,575.29 is the reciprocal of the desired probability of selecting a DU for the CSFII/DHKS 1996, and H_i^{ret} is generally 1 except for new or missed DUs in 8 segments in which new and missed DUs to be added through the missed structure procedure were subsampled to control the interviewers' workload.

Table 5-3. Definition of response status groups for the Screener

Response status group	Screener Questionnaire dispositions	Number of DUs selected in Year 3
1. Respondents	Complete*	10,705
2. Nonrespondents	Refusals or other nonresponse†	169
3. Out of scope	Ineligible**	1,691
Total		12,565

* Disposition codes S01 to S03 (complete with eligibles) and S04 to S06 (complete with no eligibles).

† Disposition codes S08 to S13 (unavailable for field period, language problem, breakoff, maximum contacts, other nonresponse).

** Disposition code S07 (vacant, not a DU).

Nonresponse adjustment weighting classes were then defined by crossing the following four segment-level variables:

1. Census region (1 = Northeast, 2 = Midwest, 3 = South, and 4 = West);
2. MSA status (1 = MSA, 2 = non-MSA);
3. Minority status of segment (1 = "nonminority" segments, 2 = "high black" or "high Hispanic" segments); and
4. Quarter of data collection.

Within each cell defined by the above cross-classification, an adjustment factor F_g^{scr} was computed as

$$F_g^{scr} = \frac{\sum_{i=1}^{n_1} w_{gi}^{scr} + \sum_{i=1}^{n_2} w_{gi}^{scr}}{\sum_{i=1}^{n_1} w_{gi}^{scr}} \qquad (11)$$

where the first sum in the numerator of F_g^{scr} extended over the responding DUs in cell g (response status group 1) and the second sum in the numerator of F_g^{scr} extended over the nonresponding DUs in cell g (response status group 2). The sum in the denominator of F_g^{scr} extended over the responding DUs in cell g. The out-of-scope cases (response status group 3) were not used in the calculation of the adjustment factors.

The reciprocal of F_g^{scr} is a weighted response rate for the non-out-of-scope DUs in weighting class g. The factor F_g^{scr} is a DU-level adjustment that was used to inflate the DU base weights to compensate for the nonresponding DUs in the Screener sample. Table 5-4 summarizes the values of F_g^{scr} for the 58 weighting classes.

5.2.2 Nonresponse Adjustments for the Day 1 Intake Interview

A total of 6,386 SPs in the 10,705 households that completed the Screener were initially determined to be eligible for the Day 1 Intake interview. To compensate for the fact that not all of the 6,386 eligible SPs completed the Day 1 Intake interview, the following procedures were used to adjust the SP base weights.

First, each of the 6,386 SPs selected for the CSFII/DHKS 1996 was assigned to one of the three response status groups specified in Table 5-5. Note that for the purpose of calculating the nonresponse weighting adjustments described below, the two out-of-scope cases were considered to be "respondents."[1]

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[1] SPs who died or were institutionalized before completing the Day 1 Intake interview were ineligible. Treating such SPs as respondents in the weighting adjustments had the effect of distributing a small percentage of the nonrespondents to the out-of-scope group.

Table 5-4. Weighted counts of DUs and Screener nonresponse adjustment factors, by adjustment class

Weight adjustment class	Census region	MSA status	Minority status of segment	Quarter	Number of sample DUs	Weighted count of responding DUs	Weighted count of non-responding DUs	Weighted count of out-of-scope DUs	Screener adjustment factor F_g
1	1	1	1	10	466	3,078,529	60,027	857,529	1.0195
2	1	1	1	11	460	3,490,143	85,753	368,737	1.0246
3	1	1	1	12	524	3,876,031	60,027	557,394	1.0155
4	1	1	1	9	458	3,069,954	68,602	788,927	1.0223
5	1	1	2	10	93	617,421	8,575	171,506	1.0139
6	1	1	2	11	95	591,695	0	222,958	1.0000
7	1	1	2	12	66	514,517	17,151	34,301	1.0333
8	1	1	2	9	89	625,996	0	137,205	1.0000
9	1	2	1	10	82	625,996	0	77,178	1.0000
10	1	2	1	11	75	394,463	8,575	240,108	1.0217
11	1	2	1	12	61	428,765	8,575	85,753	1.0200
12	1	2	1	9	66	480,216	0	85,753	1.0000
13	2	1	1	10	468	3,635,923	68,602	377,313	1.0189
14	2	1	1	11	396	3,121,406	25,726	248,683	1.0082
15	2	1	1	12	396	3,155,707	68,602	171,506	1.0217
16	2	1	1	9	407	3,069,954	68,602	351,587	1.0223
17	2	1	2	10	88	625,996	25,726	102,903	1.0411
18	2	1	2	11	99	737,475	25,726	85,753	1.0349
19	2	1	2	12	108	703,174	34,301	188,656	1.0488
20	2	1	2	9	95	480,216	17,151	317,286	1.0357
21	2	2	1	10	229	1,587,929	0	377,956	1.0000
22	2	2	1	11	203	1,449,224	0	291,560	1.0000
23	2	2	1	12	232	1,517,826	17,151	454,490	1.0113
24	2	2	1	9	222	1,440,649	8,575	454,490	1.0060
25	2	2	2	11	17	94,328	17,151	34,301	1.1818
26	2	2	2	9	17	137,205	0	8,575	1.0000
27	3	1	1	10	578	4,356,247	25,726	574,544	1.0059
28	3	1	1	11	571	4,614,042	60,027	336,044	1.0130
29	3	1	1	12	590	4,985,832	85,831	463,690	1.0172
30	3	1	1	9	624	4,814,133	34,301	590,445	1.0071
31	3	1	2	10	185	1,389,197	8,575	188,656	1.0062
32	3	1	2	11	218	1,509,251	8,575	351,587	1.0057
33	3	1	2	12	217	1,595,004	17,151	248,683	1.0108
34	3	1	2	9	168	1,114,788	0	417,251	1.0000
35	3	2	1	10	259	1,877,989	8,575	334,436	1.0046
36	3	2	1	11	213	1,517,826	17,151	291,560	1.0113
37	3	2	1	12	182	1,158,951	0	403,467	1.0000
38	3	2	1	9	225	1,706,483	17,151	205,807	1.0101
39	3	2	2	10	69	360,162	0	231,533	1.0000

Table 5-4. Weighted counts of DUs and Screener non response adjustment factors, by adjustment class (continued)

Weight adjustment class	Census region	MSA status	Minority status of segment	Quarter	Number of sample DUs	Weighted count of responding DUs	Weighted count of non-responding DUs	Weighted count of out-of-scope DUs	Screener adjustment factor F_g
40	3	2	2	11	67	473,785	0	145,780	1.0000
41	3	2	2	12	83	565,969	8,575	137,205	1.0152
42	3	2	2	9	90	608,846	0	162,931	1.0000
43	4	1	1	10	408	3,198,583	34,301	265,834	1.0107
44	4	1	1	11	465	3,421,541	77,178	488,792	1.0226
45	4	1	1	12	448	3,421,541	94,328	325,861	1.0276
46	4	1	1	9	416	3,301,487	8,575	325,861	1.0026
47	4	1	2	10	139	969,008	17,151	205,807	1.0177
48	4	1	2	11	135	943,282	34,301	180,081	1.0364
49	4	1	2	12	93	591,695	17,151	188,656	1.0290
50	4	1	2	9	94	668,873	8,575	128,629	1.0128
51	4	2	1	10	58	471,641	0	25,726	1.0000
52	4	2	1	11	58	437,340	8,575	51,452	1.0196
53	4	2	1	12	68	540,243	25,726	17,151	1.0476
54	4	2	1	9	80	514,517	162,931	8,575	1.3167
55	4	2	2	10	70	514,517	0	85,753	1.0000
56	4	2	2	11	61	368,737	0	154,355	1.0000
57	4	2	2	12	87	1,140,514	0	42,876	1.0000
58	4	2	2	9	34	257,259	0	34,301	1.0000
Total					12,565	92,960,019	1,475,028	14,705,738	

Table 5-5. Definition of response status groups for the Day 1 Intake interview

Response status group	Day 1 Intake dispositions	Number eligible SPs
1. Respondents	Complete*	5,188
2. Nonrespondents	Refusals or other nonresponse†	1,196
3. Out of scope	Ineligible**	2
Total		6,386

* Disposition codes F01 to F03 (complete with SP or proxy).

† Disposition codes F08 to F15 (unavailable for field period; language problem; breakoff; maximum contacts; moved, unable to locate; other nonresponse).

** Disposition code F30 (out of scope).

Next, each eligible SP was assigned an initial weight, w_{gi}^{I1}, defined as follows:

$$w_{gi}^{I1} = F_g^{scr} w_{gi}^{base}, \tag{12}$$

where w_{gi}^{base} is the base weight for SP i in Screener adjustment class g and F_g^{scr} is the corresponding Screener nonresponse adjustment factor summarized in Table 5-4.

Weighting classes for adjusting the initial Day 1 Intake weights for nonresponse were then identified by a CHAID analysis.[2] The CHAID algorithm (which stands for "chi-square automatic interaction detector") provided an objective and computationally efficient way of identifying subsets of the sample that were internally homogeneous with respect to response rates while maximizing the variation in response rates between subsets. The 15 adjustment classes that were identified by the CHAID analysis are summarized in Table 5-6.

[2] Magidson/SPSS Inc., 1993, SPSS® for Windows™ CHAID™, Release 6.0.

Within each of the weighting classes defined in Table 5-6, a Day 1 nonresponse adjustment factor, F_h^{I1}, was computed as

$$F_h^{I1} = \frac{\sum_{i=1}^{n_1} w_{hi}^{I1} + \sum_{i=1}^{n_2} w_{hi}^{I1}}{\sum_{i=1}^{n_1} w_{hi}^{I1}}, \tag{13}$$

where the first sum in the numerator of F_h^{I1} is the sum of the initial weights of the responding SPs in class h and the second sum in the numerator of F_h^{I1} is the sum of the initial weights of the nonresponding SPs in class h. The sum in the denominator of F_h^{I1} is the sum of the initial weights of the responding SPs in class h. The two "out-of-scope" cases were treated as "respondents" in the calculation of F_h^{I1}; thus, the adjustment had the effect of allocating a small proportion of the nonrespondents to the out-of-scope group.

Table 5-6. Definition of weighting classes used to adjust the Day 1 Intake weights

Day 1 Intake weighting class	Income level based on Screener (percent of federal poverty guidelines)	Age (years) reported in Screener	Census region	MSA status (at time of sampling)	Minority status of segment
1	130%+	0 to 5	All	MSA	Low
2	130%+	0 to 5	All	nonMSA	Low
3	130%+	0 to 5	All	All	High
4	130%+	6 to 19	All	MSA	All
5	130%+	6 to 19	All	nonMSA	All
6	130%+	20 to 29	All	All	All
7	130%+	30+	NE	All	All
8	130%+	30 to 69	MW	MSA	Low
9	130%+	30 to 69	MW	nonMSA	Low
10	130%+	70+	MW	All	Low
11	130%+	30+	MW	All	High
12	130%+	30+	S, W	MSA	All
13	130%+	30+	S, W	nonMSA	Low
14	130%+	30+	S, W	nonMSA	High
15	<130%	All	All	All	All

Table 5-7 summarizes the values of F_h^{I1} by Day 1 Intake weighting class. The factor F_h^{I1} is an SP-level adjustment that was applied to the initial weights, w_{hi}^{I1}, of the responding SPs in the weighting

class h to obtain the nonresponse-adjusted Day 1 Intake weight. Specifically, the nonresponse-adjusted Day 1 Intake weight for SP i in weighting class h was computed as

$$w_{hi}^{A1} = F_h^{I1} \; w_{hi}^{I1} \; . \tag{14}$$

Table 5-7. Weighted counts of SPs and Day 1 Intake nonresponse adjustment factors by weighting class

Day 1 Intake weighting class	Number of SPs in sample	Total weighted number of SPs*	Number of responding SPs†	Weighted number of responding SPs*	Count of non-responding SPs	Weighted number of non-responding SPs*	Day 1 Intake adjustment factor, F_h^{I1}
1	531	10,776,607	469	9,512,155	62	1,264,452	1.1329
2	86	1,621,978	81	1,552,591	5	69,387	1.0447
3	120	2,426,775	99	1,971,451	21	455,323	1.2310
4	672	28,078,160	538	22,501,998	134	5,576,162	1.2478
5	170	7,978,554	151	7,016,317	19	962,237	1.1371
6	611	23,048,307	428	16,025,406	183	7,022,901	1.4382
7	536	22,777,786	385	16,209,739	151	6,568,046	1.4052
8	365	15,503,643	303	12,911,278	62	2,592,364	1.2008
9	155	5,690,206	145	5,285,177	10	405,029	1.0766
10	91	3,922,712	69	2,896,700	22	1,026,012	1.3542
11	71	2,971,944	46	2,017,475	25	954,469	1.4731
12	1,083	47,779,353	793	34,844,190	290	12,935,162	1.3712
13	232	10,082,656	205	8,947,432	27	1,135,224	1.1269
14	104	5,418,678	79	4,117,460	25	1,301,218	1.3160
15	1,559	39,251,660	1,399	35,488,789	160	3,762,871	1.1060
TOTAL	6,386	227,329,018	5,190	181,298,160	1,196	46,030,857	

* Weights are the initial weights, w_i^{I1}.

† Includes 2 SPs with disposition code of F30 (out-of-scope cases).

5.2.3 Nonresponse Adjustments for the DHKS

As required by the CSFII/DHKS design, only SPs 20 years of age or over who had *completed* the Day 1 Intake interview without the assistance of a proxy were eligible for the DHKS. If there were two

or more such respondents, one was randomly selected for the DHKS. Consequently, the "base weight" for the i-th person selected for the DHKS was computed as

$$w_{hi}^{DHKS} = q_i G_h^{I1} w_{hi}^{I1}, \quad (15)$$

where w_{hi}^{I1} is the initial (Screener nonresponse-adjusted) weight for SP i in Day 1 weighting class h, q_i is the number of SPs 20 years of age or over in the household who *completed* the Day 1 Intake interview without assistance of a proxy, and G_h^{I1} is the "modified" Day 1 Intake nonresponse adjustment factor for weighting class h. Note that G_h^{I1} is referred to as the "modified" Day 1 Intake nonresponse adjustment factor (and thus differs from F_h^{I1}) because SPs for whom a Day 1 Intake was completed by proxy (cases with a disposition code of F02) were treated as Day 1 Intake nonrespondents for weighting the DHKS. In other words, to derive the DHKS weights, the Day 1 nonresponse adjustment factors had to be recomputed using the procedures described in Section 5.2.2, but treating SPs who completed the Intake by proxy as nonrespondents. The resulting recomputed factors are the modified factors, G_h^{I1}. The modified factors used to weight the DHKS sample are given in Table 5-8.

To adjust the DHKS base weights for nonresponse, each of the 2,089 SPs selected for the DHKS was assigned to one of the three response status groups specified in Table 5-9. Next, nonresponse weighting classes for adjusting the DHKS weights were identified by a CHAID analysis using selected variables[3] available from the Day 1 Intake interview. The seven classes listed in Table 5-10 were identified by the CHAID analysis and used for weighting purposes. Note that after controlling for the variables listed in Table 5-10, variables such as sex, Hispanic origin, and smoking status were not significant predictors of nonresponse in the DHKS.

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[3] These variables included sex, Hispanic origin, income level, household size, whether the SP was the meal planner, preparer, shopper, or on a diet, and smoking status, race, and age.

Table 5-8. Weighted counts of SPs and modified Day 1 Intake nonresponse adjustment factors by weighting class

Day 1 Intake weighting class	Number of SPs in sample	Total weighted number of SPs*	Number of responding SPs†	Weighted number of responding SPs*	Count of non-responding SPs**	Weighted number of non-responding SPs*	Modified Day 1 Intake adjustment factor, G_h^{I1}
1	531	10,776,607	469	9,512,155	62	1,264,452	1.1329
2	86	1,621,978	81	1,552,591	5	69,387	1.0447
3	120	2,426,775	97	1,940,153	23	486,622	1.2508
4	672	28,078,160	538	22,501,998	134	5,576,162	1.2478
5	170	7,978,554	151	7,016,317	19	962,237	1.1371
6	611	23,048,307	427	15,991,972	184	7,056,335	1.4412
7	536	22,777,786	378	15,913,262	158	6,864,523	1.4314
8	365	15,503,643	300	12,816,372	65	2,687,270	1.2097
9	155	5,690,206	144	5,261,537	11	428,669	1.0815
10	91	3,922,712	63	2,609,714	28	1,312,999	1.5031
11	71	2,971,944	45	1,989,166	26	982,778	1.4941
12	1,083	47,779,353	790	34,692,910	293	13,086,442	1.3772
13	232	10,082,656	199	8,677,059	33	1,405,597	1.1620
14	104	5,418,678	77	4,063,068	27	1,355,610	1.3336
15	1,559	39,251,660	1,387	35,220,902	172	4,030,758	1.1144
TOTAL	6,386	227,329,018	5,146	179,759,177	1,240	47,569,841	

* Weights are the initial weights, w_i^{I1}.

† SPs with Day 1 Intake disposition codes of F01, F03, or F30.

** Includes adult SPs for whom a Day 1 Intake was completed by proxy because of physical or mental limitations (disposition code F02) and nonrespondents (disposition codes F08-F15).

Table 5-9. Definition of the response status groups for the DHKS

Response status group	DHKS Questionnaire dispositions	Number of SPs selected for DHKS in Year 3
1. Respondents	Complete*	1,920
2. Nonrespondents	Refusals or other nonresponse†	168
3. Out of scope	Ineligible**	1
Total		2,089

* Disposition codes D01 to D02 (complete by telephone or in person).

† Disposition codes D08 to D13 and D15 (unavailable for field period; language problem; breakoff; maximum contacts; other nonresponse; moved, unable to locate).

** Disposition code D30 (out of scope).

Table 5-10. Definition of weighting classes for adjusting the DHKS weights

DHKS weighting class	Income group based on percentage of Federal poverty guidelines (POVGRP)	Food shopper status (SHOPPER)	Age reported on Intake interview (AGEGRP)	Race – black/nonblack (BLACK)
1	<76%	All	All	All
2	76-100%	All	All	All
3	101-130%	No	All	All
4	101-130%	Yes	All	All
5	131%+	All	20-24	nonblack
6	131%+	All	25+	nonblack
7	131%+	All	All	black

Within each DHKS weighting class defined in Table 5-10, the DHKS adjustment factor, F_h^{DHKS}, was computed as

$$F_h^{DHKS} = \frac{\sum_{i=1}^{n_1} w_{hi}^{DHKS} + \sum_{i=1}^{n_2} w_{hi}^{DHKS}}{\sum_{i=1}^{n_1} w_{hi}^{DHKS}}, \tag{16}$$

where the first sum in the numerator of F_h^{DHKS} extended over the responding SPs in class h and the second sum in the numerator of F_h^{DHKS} extended over the nonresponding SPs in class h. The sum in the denominator of F_h^{DHKS} extended over the responding SPs in class h.

Table 5-11 summarizes the values of F_h^{DHKS} by DHKS weighting class. The factor F_h^{DHKS} is an SP-level adjustment that was applied to the DHKS base weights, w_{hi}^{DHKS}, of the responding SPs in the weighting class h to obtain the nonresponse-adjusted DHKS weight. Specifically, the nonresponse-adjusted DHKS weight for SP i in weighting class h was computed as

$$w_{hi}^{ADHKS} = F_h^{DHKS} w_{hi}^{DHKS}. \tag{17}$$

Table 5-11. DHKS nonresponse adjustment factors by weighting cell

Weighting class	Number of responding SPs	Weighted number of responding SPs*	Number of non-responding SPs	Weighted number of non-respondents	Number of out-of-scope SPs	Weighted number of out-of-scope SPs	DHKS nonresponse adjustment factor
1	198	8,131,998	21	812,397	1	17,649	1.0999
2	133	5,768,042	8	246,825	0	0	1.0428
3	41	1,675,856	10	1,042,320	0	0	1.6220
4	106	4,665,450	9	380,395	0	0	1.0815
5	71	7,059,976	14	1,157,650	0	0	1.1640
6	1,260	109,700,575	85	6,562,440	0	0	1.0598
7	111	10,284,067	21	1,467,348	0	0	1.1427
TOTAL	1,920	147,285,966	168	11,669,375	1	17,649	

* Weights are the initial DHKS weights, w_i^{DHKS}.

5.3 Development of Calibration Adjustments

In addition to compensating for unequal selection probabilities and nonresponse, another important function of weighting is to adjust for sampling variability and possible undercoverage in the sampling frame. Therefore, the final step of the weighting process was to "calibrate" the nonresponse-adjusted weights so that the sum of the final weights equaled the corresponding March 1996 CPS population totals within subsets defined by the following variables[4]:

- Sex;
- Age group (seven categories based on Intake interview: 0-2, 3-5, 6-11, 12-19, 20-39, 40-59, 60+ years);
- Season of Intake: winter (January to March), spring (April to June), summer (July to September), and fall (October to December);
- Day of week of Intake;
- Census region (four regions);
- MSA status (MSA vs. non-MSA);
- Household income level [defined in terms of percentage of Federal poverty level in four categories (0-75%, 76-130%, 131-300%, 301%+)];
- Received Food Stamps in past 12 months;
- Home ownership (owned vs. not owned);
- Presence of children under 6 years of age in household;
- Presence of children 6 to 17 years of age in household;
- Number of adults in household (1, 2, 3+);
- Presence of female head of household 40 years old or younger and no one in the household under 18 years of age;
- Employment status ("had paid job last week") of the female head of household if household had a female head; otherwise, the employment status of the male head of household;
- Employment status ("had paid job last week") of the SP;

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[4]Variables provided by ARS in memorandum from J. Goldman to A. Chu, dated March 17, 1997.

- Race of SP (black vs. nonblack); and
- Hispanic origin of SP (Hispanic vs. non-Hispanic).

The calibration was implemented by an iterative process known as "raking ratio weighting." This process was carried out separately for each of the following four subsets specified by ARS: (1) males 20 years of age or older; (2) females 20 years of age or older; (3) children 0 to 5 years of age; and (4) persons 6 to 19 years of age. As documented in Attachment 5., the variables used in the raking process differed slightly for the four ARS subsets. For example, the variable on employment status was not applicable to the subsets of younger persons. In Attachment 5., the variables (dimensions) used in the weighting process are defined by the variable names *DIM*1, *DIM*2, etc., and may have different meanings for the different subsets. Most of the raking variables are intrinsically univariate, but a few are bivariate in structure. Also shown in Attachment 5. are the March 1996 CPS population totals to which the nonresponse-adjusted (pre-raked) CSFII/DHKS weights were adjusted.

The algorithm used to calculate the final (calibrated or "raked") weights for the Day 1 Intake data (with analogous procedures for the DHKS data) was essentially as follows:

First, for each level defined by the raking variable *DIM*1, an adjustment factor, $F^{(1)}_{DIM1}$, was computed as

$$F^{(1)}_{DIM1} = \frac{N_{DIM1}}{\sum_{i=1}^{n_1} w_i^{NR}},$$

where N_{DIM1} is the March 1996 CPS control total for the given level of *DIM*1, w_i^{NR} is the nonresponse-adjusted Day 1 weight (or nonresponse-adjusted DHKS weight), and the denominator of $F^{(1)}_{DIM1}$ extends over the responding SPs in the given cell (level) of *DIM*1. An intermediate *DIM*1-adjusted weight was then calculated as

$$w_i^{DIM1} = w_i^{NR} F^{(1)}_{DIM1}.$$

Next, the w_i^{DIM1}'s calculated above were used to calculate an adjustment within each level of *DIM*2 as follows:

$$F_{DIM2}^{(1)} = \frac{N_{DIM2}}{\sum_{i=1}^{n_1} w_i^{DIM1}}$$

where N_{DIM2} is the March 1996 CPS control total for the given level of *DIM*2 and where the denominator of $F_{DIM2}^{(1)}$ extends over the responding SPs in the given cell (level) of *DIM*2. An intermediate *DIM*2-adjusted weight was then calculated as

$$w_i^{DIM2} = w_i^{DIM1} F_{DIM2}^{(1)}.$$

The w_i^{DIM2}'s were then used to calculate an intermediate *DIM*3-adjusted weight, w_i^{DIM3}, using procedures analogous to those described above. This procedure continued up to the last raking variable, *DIM*13 (or *DIM*14, depending on the ARS subset), using the previously adjusted intermediate weights.

Using the weights developed from the previous iteration, the whole process was then repeated starting with *DIM*1 and continuing through *DIM*13 (or *DIM*14). The iteration process continued until the difference between the calculated weighted sums and the corresponding CPS totals was acceptably small for *all* levels of each raking variable (i.e., within 0.005% or less of the corresponding CPS totals for each level of each raking variable).

Table 5-12 summarizes the final weighted counts of Day 1 Intake respondents by sex and age group. Table 5-13 summarizes the corresponding final weighted counts of DHKS respondents by sex and age group. The tables also show the corresponding weighted counts using the nonresponse-adjusted (pre-raked) weights and the coefficients of variation of the weights. The coefficient of variation of the weights, c_w, is defined as $c_w = s_w/\overline{w}$, were $\overline{w}$ and s_w are the (unweighted) mean and standard deviation of the weights, respectively. The coefficient of variation of the weights is informative because $1+(c_w/100)^2$ represents the increase in the variance of survey estimates resulting from the variation in weights.

Table 5-12. Unweighted and weighted counts of Day 1 Intake respondents and coefficient of variation of weights, by sex and age group

Sex (as reported in Intake interview)	Age group (based on response in Intake interview)	ARS Subset	Number of completed Day 1 Intakes	Weighted count of respondents using NR-adjusted weights	Coefficient of variation of NR weights (percentage)	Weighted count of respondents using final (raked) weights	Coefficient of variation of final weights (percentage)
Male	less than 1 year	3	69	1,750,092	50.86	2,171,099	59.81
	1 to 2 years	3	203	3,152,924	16.21	3,950,772	34.71
	3 to 5 years	3	170	6,378,684	23.02	6,338,165	32.79
	6 to 11 years	4	265	11,180,013	42.19	12,146,162	52.08
	12 to 19 years	4	255	11,994,975	16.32	15,398,675	37.41
	20 to 29 years	1	308	14,953,481	16.19	18,859,453	43.59
	30 to 39 years	1	372	18,759,545	38.15	21,387,625	49.90
	40 to 49 years	1	274	16,453,150	38.25	18,532,706	50.70
	50 to 59 years	1	268	10,199,580	41.53	12,482,270	56.08
	60 to 69 years	1	286	7,178,471	35.63	8,875,431	59.98
	70+ years	1	196	7,329,917	18.50	8,963,682	43.60
Female	less than 1 year	3	51	1,213,301	54.05	1,621,211	55.74
	1 to 2 years	3	210	2,889,775	24.76	4,193,587	36.12
	3 to 5 years	3	241	5,325,745	17.40	6,088,637	31.94
	6 to 11 years	4	235	10,941,714	32.99	11,575,982	40.22
	12 to 19 years	4	253	12,915,494	27.11	14,832,199	46.29
	20 to 29 years	2	277	14,694,077	17.38	18,056,121	35.45
	30 to 39 years	2	282	20,363,164	32.35	22,698,642	41.23
	40 to 49 years	2	335	18,204,519	35.97	18,967,525	46.38
	50 to 59 years	2	245	11,629,573	38.76	13,496,162	46.03
	60 to 69 years	2	244	8,532,323	21.65	10,308,147	32.62
	70+ years	2	149	11,144,574	19.72	13,289,965	28.88
Total			5,188	227,185,091		264,234,216	

Table 5-13. Unweighted and weighted counts of DHKS respondents and coefficient of variation of weights, by sex and age group

Sex (as reported in Intake interview)	Age group (based on response in Intake interview)	ARS Subset	Number of completed Day 1 Intakes	Weighted count of respondents using NR-adjusted weights	Coefficient of variation of NR weights (percentage)	Weighted count of respondents using final (raked) weights	Coefficient of variation of final weights (percentage)
Male	20 to 29 years	1	147	13,078,816	47.43	18,869,240	90.31
	30 to 39 years	1	222	17,526,243	53.41	21,377,822	76.23
	40 to 49 years	1	160	17,229,768	56.85	18,278,307	70.50
	50 to 59 years	1	159	10,242,977	61.63	12,736,680	79.65
	60 to 69 years	1	192	7,299,221	66.56	9,388,779	95.91
	70+ years	1	128	6,765,066	40.40	8,450,340	71.14
Female	20 to 29 years	2	144	15,719,045	53.82	18,802,341	77.47
	30 to 39 years	2	166	21,839,769	52.59	21,952,459	58.52
	40 to 49 years	2	190	16,725,349	60.36	17,701,200	71.81
	50 to 59 years	2	148	12,187,805	60.11	14,762,473	73.51
	60 to 69 years	2	164	9,400,419	50.25	11,095,250	58.64
	70+ years	2	100	10,940,863	49.19	12,502,839	51.48
Total			1,920	158,955,341		185,917,730	

Finally, note that the age groupings given in Tables 5-12 and 5-13 do not coincide with those used in the calibration process (see Attachment 5.A). As a result, the weighted counts shown in these tables may differ from the corresponding CPS totals. However, within the broad age groupings used in weighting, the final weighted counts agree with the corresponding CPS population totals (to within ±0.005%).

5.4 Generating Replicate Weights for Computation of Sampling Errors

To permit the computation of sampling errors, a set of "jackknife" replicate weights was constructed and attached to each data record. Separate sets of replicate weights were created for the Day 1 Intake and DHKS data sets. Under the jackknife replication method, a prescribed number of subsamples (called jackknife replicates) were generated from the full sample, and the entire weighting process as described in the previous sections was repeated for each replicate. In this way, a series of replicate weights were generated for each data record, which together with the full-sample weight can be used to calculate sampling errors (see Section 6.3).

The approach used to construct the jackknife replicates was as follows. First, 19 variance estimation strata were formed from the 38 noncertainty PSUs by pairing adjacent PSUs in the sampling frame. Each PSU within a variance estimation stratum defined what is referred to as a variance estimation unit (VEU). Next, within each of the 24 certainty PSUs, one-half of the segments (selected systematically from a list that maintained the original sort order) were assigned to one VEU and the remaining one-half to another. Because each certainty PSU was considered to be a separate variance estimation stratum, a total of 43 variance estimation strata were created by this process. A jackknife replicate was then created by dropping out one VEU from one of the variance estimation strata and doubling the weight of the other VEU in that stratum. The 43 jackknife replicates were created by applying this process to each of the 43 variance estimation strata. By repeating the weight calculations for each replicate, a total of 43 final replicate weights were generated for each data record (SP).

Table 5-14 summarizes the number of cases included in each jackknife replicate for selected subsets of the sample. Section 6.3 discusses the use of these jackknife replicates for variance estimation and provides some illustrative variance calculations.

Table 5-14. 1996 sample sizes by jackknife replicate and subset

Jackknife replicate	SPs completing Day 1 intake	Males 20+ years of age completing Day 1 intake	Females 20+ years of age completing Day 1 intake	Children 0-5 years of age completing Day 1 intake	Persons 6-19 years of age completing Day 1 intake	Males 20+ years of age completing DHKS	Females 20+ years of age completing DHKS
1	5,108	1,674	1,506	929	999	986	893
2	5,086	1,677	1,504	923	982	991	895
3	5,128	1,683	1,512	937	996	993	900
4	5,055	1,655	1,507	909	984	980	897
5	5,070	1,670	1,501	920	979	988	890
6	5,083	1,666	1,496	928	993	988	891
7	5,118	1,681	1,509	930	998	997	897
8	5,087	1,678	1,496	922	991	991	892
9	5,048	1,660	1,495	907	986	981	891
10	5,092	1,671	1,508	923	990	987	901
11	5,071	1,664	1,497	924	986	982	892
12	5,144	1,695	1,518	933	998	1,003	903
13	5,101	1,670	1,507	926	998	986	902
14	5,120	1,674	1,512	936	998	983	902
15	5,123	1,676	1,512	936	999	991	897
16	5,073	1,653	1,502	927	991	975	897
17	5,066	1,665	1,495	921	985	985	892
18	5,084	1,669	1,501	924	990	982	895
19	5,068	1,661	1,496	927	984	973	890
20	5,161	1,698	1,525	937	1,001	1,006	909
21	5,165	1,698	1,527	940	1,000	1,004	908
22	5,142	1,689	1,524	933	996	999	906
23	5,161	1,695	1,522	941	1,003	1,003	905
24	5,179	1,702	1,529	941	1,007	1,006	910
25	5,157	1,699	1,524	930	1,004	1,005	905
26	5,164	1,693	1,523	942	1,006	1,002	906
27	5,162	1,692	1,523	942	1,005	1,001	907
28	5,163	1,696	1,520	942	1,005	1,004	905
29	5,163	1,697	1,525	936	1,005	1,006	908
30	5,166	1,694	1,528	939	1,005	1,001	909
31	5,144	1,690	1,523	932	999	1,002	905
32	5,178	1,700	1,529	941	1,008	1,006	910
33	5,136	1,692	1,517	933	994	999	904
34	5,164	1,693	1,525	941	1,005	1,003	908
35	5,174	1,699	1,528	942	1,005	1,005	910
36	5,149	1,691	1,521	932	1,005	1,004	903
37	5,159	1,698	1,520	941	1,000	1,006	906
38	5,163	1,698	1,526	939	1,000	1,005	907
39	5,172	1,698	1,527	943	1,004	1,004	910
40	5,159	1,696	1,524	938	1,001	1,004	906
41	5,130	1,685	1,520	931	994	996	908
42	5,168	1,696	1,526	940	1,006	1,002	908
43	5,137	1,690	1,515	932	1,000	999	902
Total sample	5,188	1,704	1,532	944	1,008	1,008	912

6. FACTORS INFLUENCING STATISTICAL INFERENCES

The following sections discuss some of the factors that will affect the ability to make valid inferences from the data for the Continuing Survey of Food Intakes by Individuals and the Diet and Health Knowledge Survey (CSFII/DHKS). First, Section 6.1 defines the population of inference. Each year's sample is intended to provide a cross-section of the resident population in the United States living in households. Section 6.2 discusses the need to use sampling weights in analysis to compensate for the variable rates with which sample persons (SPs) were drawn into the sample. Section 6.3 describes a method that can be used to calculate the sampling errors needed to properly interpret the weighted survey results.

6.1 Population of Inference

In general, the population of inference for any given study year of the CSFII/DHKS consists of noninstitutionalized persons residing in the United States. Excluded from the sample are institutionalized individuals such as those in prisons, juvenile facilities, and nursing homes. Also excluded from the sample are persons living in group quarters (e.g., rooming houses), persons residing on military installations, and homeless persons.

Although the above definition is conceptually straightforward, special rules were required in a few unusual circumstances to establish "eligibility" for weighting and analytic purposes. These rules included the following:

- SPs who became institutionalized, died, or moved out of the country before the completion of a particular interview were considered to be ineligible for that interview.
- SPs identified during screening who moved within the United States before the first Intake interview and who could not be successfully traced and interviewed were considered to be (eligible) survey nonrespondents.
- An attempt was made to contact by telephone SPs who moved after completing the Day 1 Intake interview. If the Day 2 Intake interview was not obtained, the SP was considered to be an eligible nonrespondent for the combined Day 1 and Day 2 Intake interviews but a respondent for the Day 1 Intake interview.

- SPs selected for the DHKS who later died, became institutionalized, or moved out of the country before completing the DHKS were treated as ineligible for the DHKS.

6.2 The Use of Weights in Analysis

Because the CSFII/DHKS sample is based on a complex, multistage area probability design in which SPs were selected at rates that varied by sex, age, and income level, weights are generally required for the analysis of the survey results. As described in Chapter 5, these weights reflect the variable sampling rates used to select the CSFII/DHKS sample and include adjustments to compensate for differential response rates and undercoverage. Two sets of weights have been calculated for the CSFII/DHKS 1996, including one set of weights for the Day 1 Intake data set and another for the DHKS data set. Note that these two sets of weights are not designed for analyzing either the combined Day 1 and Day 2 Intake data set or the Household Questionnaire data set.

The weights have the property that they sum to the March 1996 Current Population Survey population estimates within groups defined by sex, age, Census region, income level, and other variables (see Section 5.3). Estimates of means (e.g., mean saturated fat intake) should be calculated as a weighted ratio mean of the form

$$\bar{y} = \frac{\sum_{i=1}^{n} w_i y_i}{\sum_{i=1}^{n} w_i}$$

where w_i is the final weight for the i-th SP and y_i is the corresponding value of the survey item of interest. Similarly, estimates of ratios, proportions, correlations, or other population quantities should be computed on a weighted, rather than unweighted, basis. In most cases, use of the unweighted survey results may lead to misleading or invalid inferences.

6.3 Variance Estimation

Estimates derived from the CSFII/DHKS 1996 sample are subject to sampling error because they are based on only a small fraction of the target population. However, probability sampling techniques

make it possible to estimate the sampling error directly from the survey results. These sampling errors can be expressed either as standard errors or coefficients of variation (CVs, the ratio of the standard error to the estimate) or as confidence bounds around the estimate.

For the CSFII/DHKS, a method of jackknife replication can be used to calculate the sampling errors of the survey-based estimates. Under the jackknife replication method, a specified number of subsamples of the full sample (i.e., replicates) are created for which the statistic of interest is recalculated. The variability of the replicate estimates is then used to obtain the variance of the statistic. The advantage of the replication methods is that they preclude the need to specify complicated variance formulas.[1] The way in which the required jackknife replicates were created for the CSFII/DHKS 1996 is described in Section 5.4. In particular, it should be noted that the replicates were designed to reflect the stratification and clustering used in the CSFII/DHKS sample design.

To illustrate how the sampling errors can be calculated, let $\bar{y}$ denote a weighted survey estimate (e.g., mean saturated fat intake per person or mean calories per meal). Further, let $\bar{y}_{(j)}$ be the corresponding estimate for jackknife replicate j. The estimated variance of $\bar{y}$ is then given by the formula

$$\text{var}(\bar{y}) = \sum_{j=1}^{K} (\bar{y}_{(j)} - \bar{y})^2,$$

where the summation extends over all K jackknife replicates. The corresponding approximate 95 percent confidence limits around the estimate are given by

$$\bar{y} \pm 1.96\sqrt{\text{var}(\bar{y})}$$

To implement the jackknife replication method, the set of replicate weights described in Section 5.4 has been attached to each record in the data file. Together with the full-sample weight, the replicate-based sampling errors can then be computed using, for example, Westat's variance estimation program, WesVarPC.[2] WesVarPC is a statistical software package that computes weighted survey estimates and their associated sampling errors. In addition to providing confidence intervals for sample-

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[1] See, for example, P. McCarthy, (1966), Replication: An Approach to the Analysis of Data from Complex Surveys, *Vital and Health Statistics*, Series 2, No. 14, Washington, DC, U.S. Department of Health, Education and Welfare.

[2] Westat, Inc. (1996). *A User's Guide to WesVarPC*. Rockville, MD: Westat, Inc.

based estimates, WesVarPC performs "modified" chi-square tests of independence in weighted two-way tables using estimated design effects. The modified chi-square methods used in WesVarPC include the method proposed by Fellegi[3] and two methods described by Rao and Scott.[4,5]

To illustrate the use of the jackknife replicate weights for calculating sampling errors and to provide some numerical results for checking purposes, some illustrative standard error calculations are summarized in Table 6-1. The standard errors shown in the table were calculated by WesVarPC using the variance-estimation formulas presented previously. The standard errors and CVs shown in the table are not intended to represent the levels of precision to be expected from the CSFII/DHKS 1996, but rather to serve as a rough check of the proper use of the replicate weights for variance estimation.

Alternatively, Taylor series linearization methods can be used for variance estimation. For example, the commercially available software package SUDAAN can be used for this purpose.[6] For complex survey samples such as the CSFII/DHKS sample, the SUDAAN software requires that an appropriate "stratum" and "PSU" code be available for each record in the data file. In the CSFII/DHKS data file, the stratum and PSU codes to be used for this purpose are the variables named VARSTRAT and VARUNIT, respectively.

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[3] I. Fellegi. (1980). Approximate Tests of Independence and Goodness of Fit Based on Stratified Multistage Samples. *Journal of the American Statistical Association*, 71, 665-670.

[4] J. Rao and A. Scott. (1981). The Analysis of Categorical Data from Complex Sample Surveys: Chi-Squared Tests for Goodness of Fit and Independence in Two Way Tables. *Journal of the American Statistical Association*, 76, 221-230.

[5] J. Rao and A. Scott. (1984). On Chi-Squared Tests for Multiway Contingency Tables with Cell Proportions Estimated from Survey Data. *Annals of Statistics*, 12, 46-60.

[6] B. Shah, R. Folsom, L. LaVange, S. Wheeless, K. Boyle, and R. Williams. (1993). *Statistical Methods and Mathematical Algorithms Used in SUDAAN*. Research Triangle Park, NC: Research Triangle Institute.

Table 6-1. Illustrative estimates and jackknifed standard errors for selected statistics

ARS Subset	Data set	Statistic	Income (as a percentage of poverty) subdomain	Sample size	Estimate	Standard error	CV of estimate (percentage)
Males, 20+	Day 1	Proportion of persons in homes they own	Under 75	127	0.42	0.0460	10.8
			101-130	118	0.57	0.0653	11.4
			301-500	416	0.77	0.0217	2.8
		Average age	76-100	99	39.52	3.94	10.0
			131-300	512	44.48	0.93	2.1
			501+	432	46.50	0.74	1.6
Females, 20+	Day 1	Proportion of persons in homes they own	Under 75	170	0.37	0.0389	10.7
			101-130	123	0.51	0.0546	10.7
			301-500	371	0.75	0.0214	2.9
		Average age	76-100	102	47.22	2.44	5.0
			131-300	435	47.55	0.96	2.0
			501+	331	46.20	1.04	2.2
Children, 0-5	Day 1	Proportion of persons in homes they own	Under 75	140	0.14	0.0304	22.5
			101-130	90	0.47	0.0721	15.2
			301-500	197	0.80	0.0478	5.9
		Average age	76-100	69	2.50	0.20	7.9
			131-300	335	2.49	0.09	3.5
			501+	113	2.35	0.20	8.6
Persons, 6-19	Day 1	Proportion of persons in homes they own	Under 75	167	0.19	0.0408	21.1
			101-130	81	0.39	0.0896	22.9
			301-500	251	0.80	0.0342	4.3
		Average age	76-100	72	13.32	0.46	3.4
			131-300	306	12.14	0.23	1.9
			501+	131	12.59	0.35	2.8
Males, 20+	DHKS	Proportion of persons in homes they own	Under 75	81	0.39	0.0644	16.3
			101-130	73	0.58	0.0832	14.3
			301-500	234	0.77	0.0312	4.1
Females, 20+	DHKS	Proportion of persons in homes they own	Under 75	117	0.41	0.0494	12.0
			101-130	74	0.51	0.0778	15.1
			301-500	217	0.76	0.0264	3.5

ATTACHMENTS

2. Attachments Related to Sampling

   2.A Selected Procedural Memorandums Relevant to Sampling
   2.B List of 62 Primary Sampling Units and Selected Characteristics

3. Attachments Related to Data Collection

   3.A CSFII/DHKS 1996 Data Collection Instruments
   3.B Summary of Revisions to the Food Instruction Booklet
   3.C Interviewer Refresher Training Agenda
   3.D Interviewer Training Agenda
   3.E Periodic Quizzes Administered to the Interviewers
   3.F Final Response Rates for the CSFII/DHKS 1996 by PSU and Questionnaire Type
   3.G Evaluation Form for Taped Interviews
   3.H In-Person Observation Form
   3.I Field Staff Memorandums
   3.J Interviewer Debriefing Questionnaire Showing Tally of Responses and Comments
   3.K Summary of In-Person Interviewer Debriefing

4. Attachments Related to Data Preparation

   4.A General Edit Forms for Non-Intake Questionnaires
   4.B Missing Detail Report
   4.C General Interviewer Error Report
   4.D Survey Net Adjudication Report
   4.E Survey Net Error Rate Calculation

5. Attachment Related to Sampling Weights

   5. Variables used in Calibration Adjustments and CPS Control Totals, by ARS Subset

2.A Selected Procedural Memorandums Relevant to Sampling

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MEMORANDUM

940602
Memo #22

TO: J. Edmonds
cc: M. Berlin, R. Slobasky, CSFII Project File

FROM: Valerija Smith, G. Kalton, A. Chu

SUBJECT: Sampling Strategy for Selecting Segments for the CSFII Pilot Study

DATE: November 24, 1992 (Revised 12/9/92)

For the CSFII pilot study, a sample of 4 area segments will be selected from each of 10 purposively selected PSUs. Subject to HNIS approval, the 10 PSUs are those given G. Kalton's memo #13. Since the contract specifies that the pilot segments must be different from those to be selected for the main study, we will first select the segments for the main study using a Keyfitz type procedure to maximize overlap with the NALS segments, and then select the pilot sample from the remaining segments in the 10 PSUs.[1] The specifications given below are for selecting the segments for the main study. Specifications for drawing the pilot sample segments will be given later.

For the main study, 36 segments will be selected from each sample PSU. The procedures to be used to select these segments in each of the 10 pilot PSUs are as follows:

For a given PSU, let p_i be the probability of selecting segment i in the PSU for NALS, and let P_i be the corresponding desired probability of selecting the segment for the CSFII main study. Specifically,

$$p_i = \frac{W_{PSU} M_i^{NALS}}{I_{Prim}}$$

and

$$P_i = \frac{36 M_i^{CFSII}}{\sum_{i=1}^{N} M_i^{CFSII}}$$

where

W_{PSU} = the reciprocal of the probability of selecting the PSU;

[1] In addition to the selected CSFII segments, any other segments in NALS (either primary or reserve) will ineligible for selection for the pilot study.

M_i^{NALS} = the NALS measure of size for segment i;

I_{prim} = the sampling interval for selecting the primary NALS sample;

M_i^{CFSII} = sampling measure of size for segment i for CSFII

= the maximum of 60 and the number of housing units in segment i;

$\sum_{i=1}^{N} M_i^{CFSII}$ = the total CSFII measure of size for the PSU.

Within a PSU, divide the segments into 4 classes and define the probability of retaining the segment in the CSFII sample as specified below.

CLASS		Probability of retention
A	Segment in primary NALS sample, $P_i \geq p_i$	1
B	Segment in primary NALS sample, $P_i < p_i$	P_i/p_i
C	Segment not in primary NALS sample, $P_i \geq p_i$	$(P_i - p_i)/(1 - p_i)$
D	Segment not in primary NALS sample, $P_i < p_i$	0

Note that if a segment was selected for the primary NALS sample and $P_i \geq p_i$ (class A), then this segment should be retained in the CSFII sample with conditional certainty. Therefore, select <u>all</u> segments in class A for CSFII. Let a be the number of segments in class A.

Next, from class B and C combined, select an additional (36 - a) segments as follows:

Let M be the sum of the probabilities of retention, summed across all segments in classes B and C. Sort the file of segments in the original NALS selection order, and select the (36 - a) segments systematically and with probabilities proportionate to the probability of retention, using a sampling interval of M/(36 - a). Use the WESSAMP sampling macro to make the selections. Produce the standard outputs for checking and documentation purposes.

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MEMORANDUM

940602
Memo # 87

To: Debby Vivari
cc: A. Chu, G. Kalton, M. Berlin, CSFII Project File

From: V. Smith

Subject: Selection of segments for the CSFII main study

Date: June 14, 1993

Version: 3

The sample of segments for the CSFII main study will be selected from Westat's 62-PSU master sample. We understand that to allow sufficient time to prepare the segment maps, the sample of segments must be selected and verified by June 30, 1993. The algorithm to be used to select the sample is given in project memo #22. A copy of memo #22 is attached for reference.

In the course of selecting the segments for the pilot test, we have already selected the segments for the main study in 4 of the 10 pilot PSUs. These are PSUs A106, A203, A302, and A412. To select the segments from the remaining 58 PSUs, use the algorithm given in attached memo #22. Note that 36 segments will be selected from each PSU, including all segments in "class A" as defined in memo #22. The "class A" segments are those to be retained within certainty. Prior to sample selection, the remaining segments (the class B and C segments) will be sorted in the original NALS selection order. The measure of size to be used in the selection of segments is a function of the retention probabilities required to maximize the overlap with the segments selected for NALS (see memo # 22).

Assignment of segments to study years and quarters

Once the segments are sampled, number the selected segments in each PSU from 1 to 36. The numbering of segments should follow the original NALS selection order irrespective of the class A, B, and C designations used to select the CSFII segments. Then use the following Table 1 to assign the segments from each PSU to one of 12 "segment groups." A segment group is simply a subset of three CSFII segments. For example, in a given PSU, segment group 1 consists ordered segments 1, 25, 24. Segment group 2 consists of ordered segments 3, 27 and 22, and so on up to segment group 12 which consists of ordered segments 23, 26, and 2. Note that the definition of the segment groups given in Table 1 applies to all 62 PSUs.

Next, generate a random permutation of the integers 1, 2, 3. This should be done separately for each of the 62 PSUs. Let A, B, and C denote the permuted integers.[1] Similarly, generate a random permutation of the integers 1, 2, 3, and 4 (e.g., using the algorithm specified previously for A, B, and C), and denote the permuted integers by Q, R, S, and T. Assign the 12 segment groups to one of the three study years A, B, or C, and quarters Q, R, S, and T as indicated in Table 1. For example, suppose that for a particular PSU, A = 2, B = 1, and C = 3. Then according to Table 1, segment groups 2, 5, 8, and 11 should be assigned to year 1; segment groups 1, 4, 7, and 10 should be assigned to year 2; and segment groups 3, 6, 9, and 12 should be assigned to year 3. Similarly, if Q = 3, R = 1, S = 4, and T = 2, then segment groups 1, 2, and 3 should be assigned to quarter 3, segment groups 4, 5, and 6 should be assigned to quarter 1, and so on.

Check tables

After the segments are selected, produce a frequency table showing counts of segments by NALS-selection status (i.e., included in NALS primary sample or not), separately by PSU and year/quarter.

Table 1. Assignment of ordered segments to segment groups, years, and quarters

Segment group	Ordered CSFII segment number in PSU			Year	Quarter
1	1	25	24	A	Q
2	3	27	22	B	Q
3	5	29	20	C	Q
4	7	31	18	A	R
5	9	33	16	B	R
6	11	35	14	C	R
7	13	36	12	A	S
8	15	34	10	B	S
9	17	32	8	C	S
10	19	30	6	A	T
11	21	28	4	B	T
12	23	26	2	C	T

[1]One way of permuting the integers is the following: Assign a uniform random number, U_i, to the integers 1, 2, and 3 to form the pairs $(1, U_1)$, $(2, U_2)$, and $(3, U_3)$. Then sort the pairs by U_i. Set A equal to the integer corresponding to the first sorted pair. Set B equal to the integer corresponding to the second sorted pair. Set C equal to the integer corresponding to the third sorted pair. Note that this algorithm should be applied independently for each PSU.

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MEMORANDUM

940609
Memo #101

To: M. Berlin
cc: J Waksberg, G. Kalton, V. Smith, D. Vivari,
CSFII Project File

From: A. Chu

Subject: Procedures for selecting the sample of households for CSFII

Date: July 13, 1993

A total of 33,352 housing units ("line numbers") in 2,232 segments will be selected for the CSFII. A third of the 2,232 sample segments will be randomly allocated to each of the three years of the study. This translates to 744 segments per year, and about 15 housing units per segment. Of the 2,232 segments to be selected for CSFII, we have estimated that about 1,300 will be previously-listed NALS segments. Outlined below are the procedures to be used to select the sample of housing units for CSFII.

Calculation of Overall Sampling Rate, f

For the first year of data collection, the overall sampling rate for selecting housing units is given by $f = \frac{11,120}{N}$, where N is the estimated number of housing units in the nation. N will be calculated as:

$$N = \sum_{h=1}^{62} \left(\frac{1}{P_h}\right) \sum_{j=1}^{12} \left(\frac{N_{hj}^L}{P_{j|h}}\right)$$

where P_h is the probability of selecting PSU h, N_{hj}^L is the number of listed housing units in segment j in PSU h, and $P_{j|h}$ is the conditional probability of selecting segment j in PSU h for the first year of the study. For the NALS segments, the N_{hj}^L's refer to the numbers of housing units originally listed for NALS (i.e., not including new or missed structures added through the "missed structures" procedure).

Selection of Households in non-NALS Segments

At the completion of the listing operation, let N_{hj}^L be the number of housing units that are listed in segment j in PSU h. The N_{hj}^L housing units in the segment will be subsampled with equal probabilities at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{j|h}}.$$

The overall sampling rate is $P_h P_{j|h} f_{hj}^{(w)} = f$.

Selection of Households in NALS Segments

Let N_{hj}^{L} be the number of housing units that were originally listed for NALS in segment j in PSU h. For the NALS segments, the count N_{hj}^{L} should not include any structures or dwelling units that were added as a result of the "missed structure" or "missed DU" procedures.

Of the N_{hj}^{L} housing units in the segment that were originally listed, the n_{hj}^{NALS} housing units that were selected for NALS will be identified and excluded from the sampling process. The remaining $N_{hj}^{L} - n_{hj}^{NALS}$ housing units will then be subsampled at a rate of

$$f_{hj}^{(w)} = \frac{f}{P_h P_{j|h} \left(\frac{N_{hj}^{L} - n_{hj}^{NALS}}{N_{hj}^{L}} \right)}.$$

where $\left(\frac{N_{hj}^{L} - n_{hj}^{NALS}}{N_{hj}^{L}} \right)$ is the probability that a housing unit in the segment was not selected for NALS. The overall sampling rate is $P_h P_{j|h} \left(\frac{N_{hj}^{L} - n_{hj}^{NALS}}{N_{hj}^{L}} \right) f_{hj}^{(w)} = f$.

Application of Missed-Structure Procedure for CSFII

A segment selected for CSFII will be updated through the missed-structure procedure if the first housing unit in the segment is included in the sample for CSFII. This rule applies to both the NALS and non-NALS segments. Since housing units previously selected for NALS will be excluded from the CSFII sample, a NALS segment that was designated for the missed-structure procedure in NALS will not be designated for the missed-structure procedure in CSFII. In effect, the updating work that was done previously for NALS will not be used to select the housing units for CSFII. No bias is introduced since new or missed housing units will still have their appropriate chances of selection through the missed structure procedure.

Treatment of Chunked Segments

In some cases, a NALS segment was so large that it was divided into a number of subareas (chunks) of approximately equal size. One subarea was then selected for listing. We anticipate that for some large non-NALS segments, similar chunking procedures will be needed. The sampling procedures described above will apply to these chunks with one exception. For the chunked segments, the P_{jth} defined above will be adjusted to reflect the conditional probability of selecting the subarea within the PSU.

Information Needed to Sample Housing Units for CSFII

The following information will be needed to select the samples of housing units for CSFII.

(a) For each CSFII segment (both NALS and non-NALS), we will need (i) the probability of selecting the PSU in which the segment is located, (ii) the probability of selecting the segment within the PSU (i.e., CSFII selection probability corresponding to 36 segments per PSU), (iii) whether or not the segment was chunked, (iv) the conditional probability of selecting the chunk within the segment, if the segment was chunked, (v) the year and quarter to which the segment is assigned.

(b) For each non-NALS segment, we will need (i) the number of housing units reported in the Census file, and (ii) the actual number of listed housing units.

(c) For each NALS segment, we will need (i) the number of housing units reported in the Census file, and (ii) the final count of housing units originally listed for NALS (not including added structures or DUs).

(d) For each NALS segment we will need (i) the count of housing units selected for NALS, and (ii) the list of line numbers selected for NALS.

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MEMORANDUM

940609
Memo #102

TO: CSFII Project File
cc: G. Kalton, V. Smith, M. Berlin

FROM: A. Chu

SUBJECT: Note on probability of selecting first DU in segment

DATE: July 20, 1993

As part of Westat's listing QC procedures, we will apply the "missed structure" procedure to a sample segment if the first DU in the segment is selected for CSFII. For CSFII, we will exclude from sampling any DU previously selected for NALS.

Then, in a given NALS segment,

Pr{first DU in segment is selected for CSFII}

= Pr{first DU in segment is not selected for NALS}
× Pr{first DU is selected from the remaining non-NALS DUs}

$$= \left(1 - \frac{n_{NALS}}{N}\right)\left(\frac{n_{CFSII}}{N - n_{NALS}}\right)$$

$$= \frac{n_{CSFII}}{N},$$

where N is the number of DUs in the segment that were listed for NALS, n_{NALS} is number of DUs selected for NALS, and n_{CSFII} is the number DUs to be selected for CSFII. Note that N is the number of originally-listed NALS DUs, and does not include any additional DUs found as a result of the missed structures procedures, if applied.

Since $\frac{n_{CSFII}}{N}$ is the "desired" probability of selecting the first DU for CSFII, segments will be designated for the missed structure procedure at the appropriate rates.

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MEMORANDUM

940607
Memo #109

TO: Martha Berlin
cc: G. Kalton, V. Smith, J. Waksberg, CSFII project file

FROM: A. Chu

SUBJECT: Modification of procedures for assigning households to income classes for sampling

DATE: August 18, 1993

In our Pilot Study draft evaluation report, we tentatively recommended using the Pilot Study procedures for assigning households to income classes in sampling for at least the first year of the Main Survey (i.e., Sampling Recommendation 3). However, we also stated that we would continue to reexamine these rules and make any additional changes if warranted. Upon further review of the Pilot Study results, it now appears desirable to modify the earlier rules for the Main Survey.

The rules established for the Pilot Study required the identification of "low-income" segments and "nonlow-income" segments. The rules for classifying a household into income classes was based on the characteristics of the members of the household, and depended on whether the segment was classified as low income or nonlow-income. The rules used in the Pilot Study are summarized below.

Rules Used in the Pilot Study

Rule 1 (applied to low-income segments)

If the household was in a low-income segment and income was not obtained in screening, the interviewer was instructed to determine whether there was a male age 18 or over in the household and one or more children under 18 years. If there was no male age 18 or over, but one or more children under 18, the household was treated as low income for sampling purposes. Otherwise, the household was treated as non-low-income.

Rule 2 (applied to non-low-income segments)

If the household was in a non-low-income segment and income was not obtained in screening, the interviewer was instructed to determine whether there was a male age 18 or over in the household and one or more children under 6 years. If there was no male age 18 or over, but one or more children under 6, the household was treated as low income for sampling purposes. Otherwise, the household was treated as non-low-income.

As it turned out, the need to apply the above rules in the Pilot Study was infrequent. Of the 552 occupied households in the screener sample, the screener question on income was required for 139 cases (or 25 percent of the occupied households), and of these, 128 answered the question on income. This left only 11 cases for which the above rules were required.

Based on the Pilot Study experience, we expect that relatively small numbers of cases will require such rules in the Main Survey. Consequently, it seems desirable to simplify procedures by employing a single rule that would be applicable in all cases. In particular, we propose that the following rule be used in the Main Survey.

Proposed Rule for Main Survey

> If income is not obtained in screening, the interviewer will be instructed to determine whether there is a male age 18 or over in the household and one or more children under 6 years. If there is no male age 18 or over, but one or more children under 6, the household will be treated as low income for sampling purposes. Otherwise, the household will be treated as non-low-income.

Note that the proposed rule is simply Rule 2 as specified for the Pilot Study. Consequently, it is the rule that would have been applied in the majority of cases anyway (i.e., in the nonlow-income segments) if the Pilot Study rules were employed. Even in low-income segments, this rule will have a good chance of identifying low-income households.

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MEMORANDUM

TO: Martha Berlin, Adam Chu
cc: Judy Meader, Brice Hart, CSFII Project File

September 8, 1995
Memo # 501

FROM: Graham Kalton

SUBJECT: Modified missed DU procedure for NALS segments

The use of NALS segment listings for the CSFII segments that were included in the NALS sample saves on listing costs. However, the listings need to be updated for use in CSFII. In 1994 and 1995 this updating has been performed using a "missed structure" procedure that provides an unbiased way of bringing new construction into the sample. If the first dwelling on the NALS list for a segment is selected for the CSFII, then the missed structure procedure has been applied to identify all new construction in that segment. To maintain the desired selection probabilities under this procedure, *all* new construction so identified should be included in the sample. In general, this procedure has worked well. However, in a few cases the amount of new construction has been extensive. To control the interviewer's workload in these cases, subsampling of the new DUs has been used. This subsampling increases the variation in the sampling weights, which in turn increases the variances of the survey estimates.

As time elapses, the potential for extensive growth in NALS segments increases. To address this situation for the CSFII in 1996, we propose to modify the "missed structure" procedure as described below. This modification still incorporates new construction into the sample in an unbiased way and - like the procedures used in the 1994 and 1995 surveys - it avoids the selection of DUs that were selected for NALS. It involves more listing then the procedure anticipated in the Statement of Work, and therefore requires a small increase in the number of interviewer hours. However, it will reduce the need for subsampling new construction and hence lead to more precise survey estimates. Moreover, it will in general reduce the number of additional interviews required in NALS segments where the missed structure procedure is applied.

The modified procedure for a NALS segment is as follows:

- If the missed structure procedure was employed in NALS, then the procedure is not applied in CSFII.

- If the missed structure procedure was not employed in NALS, then the procedure is employed in CSFII if one of the first K line numbers is selected from a list of line members that excludes line numbers selected for NALS. When the missed structure procedure is applied, all of the new DUs are listed, and 1 in K of them are selected for the CSFII.

The modified procedure designates a NALS segment for the missed structure procedure at K times the rate of the current procedure, and hence only a subsample of 1 in K of the new dwellings needs to be

selected for CSFII to maintain the desired overall selection probability. The larger the value of K, the greater the control of the segment sample size but the more listing that is required. A value of K=3 or 4 seems a reasonable choice.

The following notation is helpful in explaining the modified procedure in more detail. Let

N	=	the number of DUs originally listed in the segment for NALS;
n	=	the number of DUs originally selected for NALS;
n_c	=	the expected number of DUs to be selected for CSFII;
f	=	n/N
	=	the within-segment sampling rate as originally applied in NALS;
f_c	=	n_c/N
	=	the desired within-segment sampling rate for CSFII.

For the CSFII, dwellings in a NALS segment can be separated into those that are included in the NALS listings and other dwellings (missed dwellings and new construction). The latter are represented in the CSFII sample through the modified missed structure procedure.

Consider first dwellings that are on the NALS listings. In order to avoid sampling dwellings for the CSFII that were sampled for the NALS, the CSFII sample is selected from the (N-n) listings after excluding the NALS sampled dwellings. The probability of selection for a listed dwelling is then

P_l = Pr (the DU's line number was not selected for NALS)

× Pr (the DU's line number is selected for CSFII given that it was not selected for NALS)

$$= \left(1-\frac{n}{N}\right)\left(\frac{n_c}{N-n}\right) = \frac{n_c}{N} = f_c.$$

Consider now the other dwellings. The probability of such a dwelling being selected for CSFII is

P_o = Pr (the segment was not selected for the missed structure procedure for NALS)

× Pr (the segment is selected from the missed structure procedure for CSFII given that it was not selected for this procedure for NALS)

× Pr (the dwelling is selected for CSFII given that the missed structure procedure was applied for CSFII)

i.e., $P_o = P(A)\ P(B|A)\ P(C|AB)$

The probability that a segment was selected for the missed structure procedure in NALS is the probability that the first NALS line number was selected for NALS, i.e., $f = n/N$. Thus $P(A) = (N\text{-}n)/N$.

The second probability is

$$P(B|A) = \frac{Kn_c}{N-n}$$

and the third probability is

$$P(C|AB) = 1/K.$$

Thus the overall probability that an other dwelling is selected from a NALS segment is

$$P_o = \frac{N-n}{N} \frac{Kn_c}{N-n} \frac{1}{K} = \frac{n_c}{N}.$$

The above derivation assumes that $Kn_c \leq (N-n)$ in order that $P(B|A) \leq 1$. In a few cases, this condition will not hold. In such cases, $P(B|A)$ can be set equal to unity (i.e., the missed structure procedure is applied with certainty), and then to give the desired overall sampling fraction of n_c/N, the other dwellings can be subsampled at a rate of $n_c/(N-n)$.

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MEMORANDUM

940631
Memo #527

TO: M. Berlin , G. Kalton
cc: I. Flores-Cervantes, B. Hart, J. Meader, R. Slobasky,
CSFII Project File

FROM: A. Chu

SUBJECT: Derivation of sampling rates and associated messages for Year 3 of the CSFII/DHKS

DATE: November 14, 1995

The sampling rates for the third and final year of the 1994-96 CSFII/DHKS have been revised to reflect the current sample yields as of 11/10/95. As described below, seven quarters of data were used to develop the required sampling rates for the all-income sample; however, only six quarters of data were used to derive the required rates for the low-income sample because income classification data for the seventh quarter were not yet available.

Table 1 summarizes the current sample yields as of this date (columns 1 and 2), along with the cumulative yields to be expected at the completion of Year 2 (column 3). Also shown are the three-year sample size goals (column 4), and the corresponding adjusted sample size targets for Year 3 (column 5). The expected yield ratio given in the next-to-last column of the table is the ratio of the number of completed Day 1 intakes (seven quarters of intakes for the all-income sample, and six quarters of intakes for the low-income sample) to the corresponding number of DUs in which an SP in the given income-sex-age domain was assigned for sampling. The number of DUs to be sampled in Year 3 shown in the last column is the adjusted target for Year 3 divided by the expected yield ratio. As can be seen in this column, the maximum number of DUs to be sampled is about 12,000 (which corresponds to the number of DUs required to obtain the desired sample of low-income 60-69 year old males).

The numbers of DUs in the last column of Table 1 are proportional to the target sampling rates to be applied in Year 3 of the study. However, following the conventions established in prior years (e.g., see Memos 173 and 328), domains with similar sampling rates were collapsed for sampling purposes. In particular, the "low-income" subset for a given sex-age group was collapsed with the corresponding "all-income" group if the Year 3 sampling rate for the all-income group was greater than or equal to the rate for the corresponding low-income group. For example, it can be seen in Table 1 that 7,256 DUs must be sampled to obtain the desired number of all-income 1-2 year old males, compared with only 2,238 DUs needed to obtain the desired number of low-income 1-2 year old males. Consequently, there is no need to supplement the sample of low-income 1-2 year old males; i.e., all 1-2 year old males will be sampled at the same rate.

The proposed collapsing of domains for sampling purposes is shown in the last two columns of Table 2. The resulting sampling messages to be used in Year 3, and the corresponding proportions of DUs to be assigned to these messages are summarized in Table 3. Due to the variability in sample yields from quarter to quarter, it may be necessary to revise the messages and rates shown in Table 3 for the third or fourth quarters of Year 3.

Table 1. Current and projected sample yields, adjusted sample targets, and projected number of DUs to sample in Year 3, by income, sex, and age domain

Income	Sex	Age	(1) Actual yield* for Year 1	(2) Current yield for 3 quarters of Year 2	(3) Projected yield through the end of Year 2†	(4) Three year sample size target	(5) Adjusted sample size target for Year 3#	(6) Expected yield ratio+	(7) Projected number of DUs to be sampled in Year 3
All	Male	1 to 2	255	204	524	719	195	0.0269	7,256
		3 to 5	295	220	574	719	145	0.0478	3,032
		6 to 11	255	178	482	719	237	0.0816	2,906
		12 to 19	284	128	472	719	247	0.1048	2,357
		20 to 29	268	143	450	793	343	0.1224	2,803
		30 to 39	312	151	516	850	334	0.1448	2,307
		40 to 49	303	209	597	850	253	0.1276	1,983
		50 to 59	266	262	613	850	237	0.0765	3,098
		60 to 69	245	234	567	850	283	0.0616	4,593
		70+	255	254	618	793	175	0.0591	2,962
	Female	1 to 2	248	185	486	719	233	0.0259	8,997
		3 to 5	302	145	493	719	226	0.0436	5,178
		6 to 11	259	175	487	719	232	0.0787	2,948
		12 to 19	271	163	487	719	232	0.1064	2,181
		20 to 29	272	141	446	739	293	0.1312	2,233
		30 to 39	293	169	524	793	269	0.1629	1,651
		40 to 49	300	204	564	850	286	0.1385	2,065
		50 to 59	292	248	616	850	234	0.0936	2,500
		60 to 69	243	231	564	793	229	0.0745	3,073
		70+	241	253	581	719	138	0.0812	1,699
Low	Male	1 to 2	88	68	186	207	21	0.0094	2,238
		3 to 5	92	75	218	207	0	0.0165	0
		6 to 11	65	44	133	207	74	0.0187	3,959
		12 to 19	98	29	132	207	75	0.0255	2,939
		20 to 29	109	30	157	207	50	0.0253	1,979
		30 to 39	87	19	113	207	94	0.0175	5,359
		40 to 49	83	38	133	207	74	0.0106	6,991
		50 to 59	61	54	145	207	62	0.0066	9,378
		60 to 69	58	59	124	207	83	0.0069	11,976
		70+	60	78	160	207	47	0.0102	4,628
	Female	1 to 2	88	60	182	207	25	0.0094	2,662
		3 to 5	104	45	170	207	37	0.0154	2,396
		6 to 11	76	37	132	207	75	0.0208	3,604
		12 to 19	79	40	135	207	72	0.0228	3,157
		20 to 29	106	33	166	207	41	0.0368	1,113
		30 to 39	88	30	128	207	79	0.0296	2,666
		40 to 49	82	46	150	207	57	0.0156	3,649
		50 to 59	67	49	143	207	64	0.0110	5,804
		60 to 69	58	70	144	207	63	0.0135	4,674
		70+	66	77	168	207	39	0.0221	1,762

*Yields based on actual returns as of 11/8/95 and reflect income imputation if available (see Memo #522).

†Based on returns for 7 quarters for all income; 6 quarters for low-income.

#Completed Day 1 intake interviews.

+Expected number of SPs completing Day 1 intake per sampled DU.

Table 2. Proposed sample sizes and projected numbers of SPs for Year 3, by income, sex, and age domain

Income	Sex	Age	(1) Total yield* through 7 quarters of study	(2) Projected yield through the end of Year 2†	(3) Original one-year sample size target#	(4) Adjusted sample size target for Year 3#	(5) Expected yield ratio+	(6) Projected number of DUs to be sampled in Year 3	(7) Proposed collapsed group
Low	Male	60 to 69	117	124	69	83	0.0069	12,000	1
Low	Male	50 to 59	115	145	69	62	0.0066	9,378	2
All	Female	1 to 2	433	486	240	233	0.0259	8,997	3
Low	Female	1 to 2	148	182	69	25	0.0094	8,997	3
All	Male	1 to 2	459	524	240	195	0.0269	7,256	4
Low	Male	1 to 2	156	186	69	21	0.0094	7,256	4
Low	Male	40 to 49	121	133	69	74	0.0106	7,256	4
Low	Female	50 to 59	116	143	69	64	0.0110	5,804	5
Low	Male	30 to 39	106	113	69	94	0.0175	5,359	6
All	Female	3 to 5	447	493	240	226	0.0436	5,359	6
Low	Female	3 to 5	149	170	69	37	0.0154	5,359	6
Low	Female	60 to 69	128	144	69	63	0.0135	4,674	7
Low	Male	70+	138	160	69	47	0.0102	4,674	7
All	Male	60 to 69	479	567	283	283	0.0616	4,674	7
Low	Male	6 to 11	109	133	69	74	0.0187	3,959	8
Low	Female	40 to 49	128	150	69	57	0.0156	3,959	8
Low	Female	6 to 11	113	132	69	75	0.0208	3,959	8
Low	Female	12 to 19	119	135	69	72	0.0228	3,157	9
All	Male	50 to 59	528	613	283	237	0.0765	3,157	9
All	Female	60 to 69	474	564	264	229	0.0745	3,157	9
All	Male	3 to 5	515	574	240	145	0.0478	3,157	9
Low	Male	3 to 5	167	218	69	0	0.0165	3,157	9
All	Male	70+	509	618	264	175	0.0591	3,157	9
All	Female	6 to 11	434	487	240	232	0.0787	3,157	9
Low	Male	12 to 19	127	132	69	75	0.0255	3,157	9
All	Male	6 to 11	433	482	240	237	0.0816	3,157	9
All	Male	20 to 29	411	450	264	343	0.1224	2,803	10
Low	Male	20 to 29	139	157	69	50	0.0253	2,803	10
Low	Female	30 to 39	118	128	69	79	0.0296	2,803	10
All	Female	50 to 59	540	616	283	234	0.0936	2,500	11
All	Male	12 to 19	412	472	240	247	0.1048	2,500	11
All	Male	30 to 39	463	516	283	334	0.1448	2,500	11
All	Female	20 to 29	413	446	246	293	0.1312	2,500	11
Low	Female	20 to 29	139	166	69	41	0.0368	2,500	11
All	Female	12 to 19	434	487	240	232	0.1064	2,181	12
All	Female	40 to 49	504	564	283	286	0.1385	2,181	12
All	Male	40 to 49	512	597	283	253	0.1276	2,181	12
Low	Female	70+	143	168	69	39	0.0221	2,181	12
All	Female	70+	494	581	240	138	0.0812	1,699	13
All	Female	30 to 39	462	524	264	269	0.1629	1,699	13

*Yields based on actual returns as of 11/8/95 and reflect income imputation if available (see Memo #522).

†Based on returns for 7 quarters for all income; 6 quarters for low-income.

#Completed Day 1 intake interviews.

+Expected number of SPs completing Day 1 intake per sampled DU.

Table 3. Sampling messages for Year 3 of the CSFII/DHKS

Message number	Characteristics of persons to be included in sample				Proportion of sample households to be assigned message
	All income males	Low-income males	All income females	Low-income females	
1		60 to 69			0.218529
2		50 to 69			0.031754
3		50 to 69	1 to 2		0.145068
4	1 to 2	40 to 69	1 to 2		0.120992
5	1 to 2	40 to 69	1 to 2	50 to 59	0.037079
6	1 to 2	30 to 69	1 to 5	50 to 59	0.057039
7	1 to 2, 60 to 69	30 to 59, 70+	1 to 5	50 to 69	0.059592
8	1 to 2, 60 to 69	6 to 11, 30 to 59, 70 +	1 to 5	6 to 11, 40 to 69	0.066845
9	1 to 11, 50+	12 to 19, 30 to 49	1 to 11, 60 to 69	12 to 19, 40 to 59	0.029498
10	1 to 11, 20 to 29, 50+	12 to 19, 30 to 49	1 to 11, 60 to 69	12 to 19, 30 to 59	0.025271
11	1 to 39, 50+	40 to 49	1 to 11, 20 to 29, 50 to 69	12 to 19, 30 to 49	0.026582
12	1+		1 to 29, 40 to 69	30 to 39, 70+	0.040166
13	!+		1+		0.141585

Created: 11/15/95
Today's date: 11/15/95

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MEMORANDUM

940641
Memo #600

TO: M. Berlin , G. Kalton
cc: B. Hart, J. Meader, R. Slobasky, CSFII Project File

FROM: A. Chu

SUBJECT: Derivation of sampling rates and associated messages for second half of Year 3 of the CSFII/DHKS

DATE: June 5, 1996

The sampling rates for the second half of the final year of the 1994-96 CSFII/DHKS have been revised. The assumptions leading to the revisions are summarized in Attachment 1. Attachment 2 summarizes the derivation of the revised sample size targets for the second half of 1996. Note that the revised targets include a slight upward adjustment to protect against probable shortfalls for some sex-age-income domains. Attachment 3 summarizes the adjustments to be made to the original sampling rates (columns 12 and 13), and the corresponding expected sample yields for the second half of 1996 (columns 18 and 19) and for all three years of the study (columns 20 and 22). Attachment 4 summarizes the derivation of the required messages for the latter half of 1996, using procedures similar to those used in prior years. Finally, Attachment 5 shows the definitions of the 17 messages to be used in the latter half of 1996.

Attachment 1
ASSUMPTIONS TO BE MADE TO ADJUST THE CSFII SAMPLING RATES
FOR THE SECOND HALF OF YEAR 3
5/30/96

All-income sample yield projections for the first half of Year 3.

1. We will use the prior 2-year yield ratios to obtain an estimate of the all-income yields for the second quarter of Year 3. Call this EST1.

2. We will adjust the current all-income yields (as of 5/31/96) for the second quarter of Year 3 by a uniform factor equal to the reciprocal of the estimated completion rate as of 5/31/96. Call this EST2.

3. We will average EST1 and EST2 to obtain an estimate of the all-income yields for the second quarter of Year 3 that will be used for sample design purposes. This average value will be added to the corresponding actual all-income yields for the first quarter of Year 3.

4. The semi-annual yields computed in (3) will be used to derive the corresponding targets for the remaining half of Year 3. These all-income targets will be inflated by (100+n)/n, where n is the initially computed target for all sex-age groups.

Low-income sample yield projections for the first half of Year 3.

5. We will use the prior 2-year yield ratios to obtain an estimate of the low-income yields for the second quarter of Year 3. Call this EST1.

6.. We will adjust the current low-income yields (as of 5/31/96) for the first quarter of Year 3 by a uniform factor equal to the ratio of the expected total number of (all-income) completes for the second quarter of Year 3 to the total number of (all-income) completes for the first quarter of Year 3. Call this EST2.

7. We will average EST1 and EST2 to obtain an estimate of the low-income yields for the second quarter of Year 3 that will be used for sample design purposes. This average value will be added to the corresponding actual low-income yields for the first quarter of Year 3.

8. The semi-annual yields computed in (7) will be used to derive the corresponding low-income targets for the remaining half of Year 3. These low-income targets will be inflated by 1.1.

Calculation of adjustments and expected yields

9. Adjusted sampling rates for the second half of Year 3 will be designed to achieve the targets specified in (4) and (8).

10. Projections of the sample yields for the remaining half of Year 3 will be based on all nine quarters of CSFII sample yield data (including quarter 1 of Year 3).

11. There are no plans to adjust the sampling rates in the last quarter of Year 3.

ATTACHMENT 2

Y3.2 Adjusted Targets:
Adjustment of sample targets for second half of Year 3 (Memo #600)

Sex	Age	(1) 3-year CSFII target (ALL income)	(2) Actual all-income sample yield for Years 1 & 2	(3) Actual all-income sample yield for Year 3/Q1	(4) Actual all-income sample yield for Year 3/Q2 (as of 5/31/96)	(5) Projected all-income sample yield for Year 3/Q2 (using prior 2-year yield ratios)	(6) Projected all-income sample yield for Year 3/Q2 (using Q2 completion rate)	(7) Proj. all-income yield for Year 3/Q2: average of columns (5) and (6)	(8) Projected all-income sample yield for Year 3, Q1 & Q2	(9) Calculated all-income target for last half of Year 3	(10) Adjusted (+100) all-income target for last half of Year 3	(11) *Adjusted all-income target for Y3/Q3*
M	1–2	719	518	44	33	52	54	53	97	104	108	*54*
	3–5	719	565	34	32	42	52	47	81	73	76	*38*
	6–11	719	487	63	49	75	80	78	141	91	95	*48*
	12–19	719	480	48	37	78	61	**65**	113	126	131	*66*
	20–29	793	472	72	48	90	79	84	156	165	172	*86*
	30–39	850	518	84	42	101	69	**80**	164	168	175	*88*
	40–49	850	587	67	64	85	105	**90**	157	106	111	*55*
	50–59	850	620	44	40	72	66	69	113	117	122	*61*
	60–69	850	560	72	58	83	95	89	161	129	135	*67*
	70+	793	594	46	31	54	51	53	99	100	105	*52*
F	1–2	719	494	63	28	63	46	**51**	114	111	116	*58*
	3–5	719	497	50	38	63	62	62	112	110	114	*57*
	6–11	719	501	72	49	77	80	79	151	67	70	*35*
	12–19	719	479	49	44	70	72	71	120	120	125	*63*
	20–29	739	444	73	33	84	54	**64**	137	158	165	*82*
	30–39	793	532	58	49	83	80	82	140	121	127	*63*
	40–49	850	567	49	67	85	110	**92**	141	142	148	*74*
	50–59	850	620	48	34	70	56	**60**	108	122	127	*64*
	60–69	793	545	50	42	68	69	68	118	130	135	*68*
	70+	719	575	38	30	43	49	46	84	60	62	*31*
Total		15,482	10,655	1,124	848	1,437	1,390	1,382	2,506	2,321	2,421	*1,210*

Bold values in column (7) indicate changes made during 6/5/96 review meeting.

ATTACHMENT 2

Y3.2 Adjusted Targets:
Adjustment of sample targets for second half of Year 3 (Memo #600)

		(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Sex	Age	3-year CSFII target (LOW income)	Actual low-income sample yield for Years 1 & 2	Actual low-income sample yield for Year 3/Q1	Projected low-income sample yield for Year 3/Q2 (using prior 2-year yield ratios)	Projected all-income sample yield for Year 3/Q2 (using Q2 completion rate)	Proj. low-income yield for Year 3/Q2: average of columns (15) and (16)	Projected low-income sample yield for Year 3, Q1 & Q2	Calculated low-income target for last half of Year 3	Adjusted (x1.1) low-income target for last half of Year 3	*Adjusted low-income target for Y3/Q3*
M	1–2	207	174	19	18	23	21	40	-7	0	*0*
	3–5	207	189	7	14	9	11	18	0	0	*0*
	6–11	207	125	14	20	17	19	33	49	54	*27*
	12–19	207	145	18	23	22	23	41	21	23	*12*
	20–29	207	151	19	20	23	22	41	15	17	*9*
	30–39	207	119	15	25	19	22	37	51	56	*28*
	40–49	207	141	21	22	26	24	45	21	23	*12*
	50–59	207	144	11	17	14	15	26	37	40	*20*
	60–69	207	134	20	22	25	24	44	29	32	*16*
	70+	207	163	11	14	14	14	25	19	21	*10*
F	1–2	207	169	22	21	27	24	46	-8	0	*0*
	3–5	207	161	14	20	17	19	33	13	15	*7*
	6–11	207	139	22	24	27	26	48	20	22	*11*
	12–19	207	133	17	20	21	21	38	36	40	*20*
	20–29	207	149	20	24	25	25	45	13	15	*7*
	30–39	207	129	15	23	19	21	36	42	46	*23*
	40–49	207	148	6	17	7	12	18	41	45	*22*
	50–59	207	132	14	17	17	17	31	44	48	*24*
	60–69	207	151	15	19	19	19	34	22	25	*12*
	70+	207	173	16	15	20	17	33	1	1	*0*
Total		4,140	2,969	316	397	391	394	710	461	524	*262*

ATTACHMENT 3

Y3.2 Adjusted Rates:
Adjustment of sampling rates for second half of Year 3 (Memo #600)

Sex	Age	(1) Number of DUs originally assigned to base sample (second half of Year 3)	(2) Number of DUs originally assigned to extra sample (second half of Year 3)	(3) Adjusted (+100) all-income target for second half of Year 3	(4) Adjusted (x1.1) low-income target for second half of Year 3	(5) All-income yield ratio for the base sample based on 9 quarters of data	(6) Low-income yield ratio for the total sample based on 9 quarters of data	(7) Expected number of all-income SPs in the base sample for the second half of Year 3	(8) Expected number of low-income SPs in the extra sample for the second half of Year 3	(9) Expected total number of all-income SPs for second half of Year 3	(10) Expected total number of low-income SPs for second half of Year 3	(11) Ratio of target to expected all-income sample for second half of Year 3	(12) Ratio of target to expected low-income sample for second half of Year 3
M	1–2	3,625	0	108	0	0.0263	0.0090	95	0	95	33	1.14	0.00
	3–5	1,527	0	76	0	0.0463	0.0152	71	0	71	23	1.07	0.00
	6–11	1,527	421	95	54	0.0783	0.0176	119	7	127	34	0.80	1.58
	12–19	1,205	322	131	23	0.0959	0.0249	116	8	124	38	1.14	0.62
	20–29	1,362	0	172	17	0.1091	0.0244	149	0	149	33	1.16	0.51
	30–39	1,205	1,478	175	56	0.1213	0.0162	146	24	170	43	1.20	1.29
	40–49	1,067	2,558	111	23	0.1078	0.0111	115	28	143	40	0.96	0.58
	50–59	1,527	3,148	122	40	0.0651	0.0065	99	20	120	30	1.23	1.33
	60–69	2,320	3,688	135	32	0.0538	0.0070	125	26	151	42	1.08	0.77
	70+	1,527	793	105	21	0.0548	0.0108	84	9	92	25	1.25	0.84
F	1–2	4,496	0	116	0	0.0261	0.0090	117	0	117	40	0.99	0.00
	3–5	2,683	0	114	15	0.0423	0.0135	113	0	113	36	1.01	0.40
	6–11	1,527	421	70	22	0.0799	0.0217	122	9	131	42	0.58	0.53
	12–19	1,067	460	125	40	0.0965	0.0223	103	10	113	34	1.22	1.17
	20–29	1,205	0	165	15	0.1148	0.0331	138	0	138	40	1.19	0.37
	30–39	834	528	127	46	0.1464	0.0277	122	15	137	38	1.04	1.23
	40–49	1,067	881	148	45	0.1158	0.0147	124	13	136	29	1.20	1.56
	50–59	1,205	1,708	127	48	0.0824	0.0104	99	18	117	30	1.28	1.60
	60–69	1,527	793	135	25	0.0672	0.0142	103	11	114	33	1.32	0.75
	70+	834	233	62	1	0.0805	0.0240	67	6	73	26	0.93	0.02
Total				2,421	524			2,228	204	2,432	691		

Y3.2 Adjusted Rates:
Adjustment of sampling rates for second half of Year 3 (Memo #600)

Sex	Age	(13) **Proposed adjustment for the base sample for the second half of Year 3**	(14) **Proposed adjustment for the extra sample for the second half of Year 3**	(15) Adjusted number of DUs to be assigned to base sample in the second half of Year 3	(16) Adjusted number of DUs to be assigned to extra sample in the second half of Year 3	(17) Expected number of all-income SPs in base sample based on revised allocation (second half of Y3)	(18) Expected number of low-income SPs in extra sample based on revised allocation (second half of Y3)	(19) Proj. number of all-income SPs based on revised allocation (second half of Y3)	(20) Proj. number of low-income SPs based on revised allocation (second half of Y3)	(21) Projected total all-income SPs for all 3 years	(22) 3-year target (all-income)	(23) Projected total low-income SPs for all 3 years	(24) 3-year target (low-income)
M	1–2	**1.14**	**0.00**	4,117	0	108	0	108	37	723	719	251	207
	3–5	**1.07**	**0.00**	1,634	0	76	0	76	25	722	719	232	207
	6–11	**0.60**	**4.40**	916	1,852	72	33	104	49	732	719	207	207
	12–19	**1.14**	**0.00**	1,370	0	131	0	131	34	724	719	220	207
	20–29	**1.16**	**0.00**	1,576	0	172	0	172	38	800	793	230	207
	30–39	**0.95**	**1.50**	1,145	2,217	139	36	175	54	857	850	210	207
	40–49	**0.85**	**0.50**	907	1,279	98	14	112	24	856	850	210	207
	50–59	**0.95**	**1.45**	1,443	4,565	94	30	124	39	856	850	209	207
	60–69	**0.95**	**0.65**	2,204	2,397	119	17	135	32	856	850	210	207
	70+	**1.25**	**0.00**	1,909	0	105	0	105	21	797	793	209	207
F	1–2	**0.99**	**0.00**	4,435	0	116	0	116	40	724	719	255	207
	3–5	**1.01**	**0.00**	2,704	0	114	0	114	37	724	719	230	207
	6–11	**0.57**	**0.50**	870	211	70	5	74	23	726	719	210	207
	12–19	**1.10**	**1.15**	1,174	529	113	12	125	38	724	719	209	207
	20–29	**1.18**	**0.00**	1,422	0	163	0	163	47	744	739	241	207
	30–39	**0.90**	**1.50**	751	792	110	22	132	43	803	793	208	207
	40–49	**1.00**	**2.00**	1,067	1,762	124	26	149	42	857	850	208	207
	50–59	**0.95**	**1.90**	1,145	3,245	94	34	128	46	856	850	209	207
	60–69	**1.32**	**0.00**	2,015	0	135	0	135	29	799	793	213	207
	70+	**0.95**	**0.00**	792	0	64	0	64	19	723	719	225	207
Total						2,216	227	2,443	716	15,604		4,395	4,140

Y3.2 Rates (Final):
Derivation of sampling rates/messages for second half of Year 3 (Memo #600)

SEQ	Income	Sex	Age	(1) Number of DUs to sample in 2nd half of Year 3 (base sample)	(2) Number of DUs to sample in 2nd half of Year 3 (extra sample)	(3) Initial number of DUs to sample in 2nd half of Year 3	(4) Yield ratio (all income - base sample)	(5) Yield ratio (low income - total sample)	(6) Revised initial relative sampling rate (from Y3.2 Adjusted Rates)	(7) Smoothed number of DUs to sample in 2nd half or Year 3	(8) Smoothed relative sampling rate	(9) Proportion of DUs to be assigned message	(10) Message number	(11) Expected all-income sample from the base sample	(12) Expected low-income sample from the base sample	(13) Expected low-income sample from the base + extra sample
28	Low	M	50–59	1,443	4,565	6,008		0.0065	1.0000	6,008	1.000000	0.234154	1			39
29	Low	M	60–69	2,204	2,397	4,601		0.0070	0.7658	4,601	0.765846	0.027715	2			32
11	All (NL)	F	1–2	4,435		4,435	0.0261	0.0090	0.7381	4,435	0.738131	0.000000	3	116	40	
31	Low	F	1–2	4,435	0	4,435		0.0090	0.7381	4,435	0.738131	0.000000	3			40
38	Low	F	50–59	1,145	3,245	4,390		0.0104	0.7307	4,435	0.738131	0.052821	3			46
1	All (NL)	M	1–2	4,117		4,117	0.0263	0.0090	0.6853	4,117	0.685310	0.000000	4	108	37	
21	Low	M	1–2	4,117	0	4,117		0.0090	0.6853	4,117	0.685310	0.125764	4			37
26	Low	M	30–39	1,145	2,217	3,362		0.0162	0.5595	3,362	0.559546	0.000000	5			54
37	Low	F	40–49	1,067	1,762	2,829		0.0147	0.4709	3,362	0.559546	0.098727	5			49
23	Low	M	6–11	916	1,852	2,769		0.0176	0.4608	2,769	0.460819	0.000000	6			49
12	All (NL)	F	3–5	2,704		2,704	0.0423	0.0135	0.4500	2,769	0.460819	0.000000	6	117	37	
32	Low	F	3–5	2,704	0	2,704		0.0135	0.4500	2,769	0.460819	0.093975	6			37
9	All (NL)	M	60–69	2,204		2,204	0.0538	0.0070	0.3668	2,204	0.366844	0.000000	7	119	15	
27	Low	M	40–49	907	1,279	2,186		0.0111	0.3638	2,204	0.366844	0.031410	7			24
19	All (NL)	F	60–69	2,015		2,015	0.0672	0.0142	0.3354	2,015	0.335434	0.000000	8	135	29	
39	Low	F	60–69	2,015	0	2,015		0.0142	0.3354	2,015	0.335434	0.017732	8			29
10	All (NL)	M	70+	1,909		1,909	0.0548	0.0108	0.3177	1,909	0.317701	0.000000	9	105	21	
30	Low	M	70+	1,909	0	1,909		0.0108	0.3177	1,909	0.317701	0.034296	9			21
34	Low	F	12–19	1,174	529	1,703		0.0223	0.2834	1,703	0.283405	0.000000	10			38
2	All (NL)	M	3–5	1,634		1,634	0.0463	0.0152	0.2720	1,703	0.283405	0.000000	10	79	26	
22	Low	M	3–5	1,634	0	1,634		0.0152	0.2720	1,703	0.283405	0.021142	10			26
5	All (NL)	M	20–29	1,576		1,576	0.1091	0.0244	0.2623	1,576	0.262263	0.000000	11	172	38	
25	Low	M	20–29	1,576	0	1,576		0.0244	0.2623	1,576	0.262263	0.000000	11			38
36	Low	F	30–39	751	792	1,543		0.0277	0.2568	1,576	0.262263	0.022081	11			44
8	All (NL)	M	50–59	1,443		1,443	0.0651	0.0065	0.2402	1,443	0.240182	0.000000	12	94	9	
15	All (NL)	F	20–29	1,422		1,422	0.1148	0.0331	0.2367	1,443	0.240182	0.000000	12	166	48	
35	Low	F	20–29	1,422	0	1,422		0.0331	0.2367	1,443	0.240182	0.012156	12			48
4	All (NL)	M	12–19	1,370		1,370	0.0959	0.0249	0.2280	1,370	0.228027	0.000000	13	131	34	
24	Low	M	12–19	1,370	0	1,370		0.0249	0.2280	1,370	0.228027	0.032670	13			34
14	All (NL)	F	12–19	1,174		1,174	0.0965	0.0223	0.1954	1,174	0.195356	0.000000	14	113	26	
6	All (NL)	M	30–39	1,145		1,145	0.1213	0.0162	0.1905	1,174	0.195356	0.000000	14	142	19	
18	All (NL)	F	50–59	1,145		1,145	0.0824	0.0104	0.1905	1,174	0.195356	0.015448	14	97	12	
33	Low	F	6–11	870	211	1,081		0.0217	0.1799	1,081	0.179908	0.000000	15			23
17	All (NL)	F	40–49	1,067		1,067	0.1158	0.0147	0.1776	1,081	0.179908	0.027412	15	125	16	
3	All (NL)	M	6–11	916		916	0.0783	0.0176	0.1525	916	0.152497	0.000000	16	72	16	
7	All (NL)	M	40–49	907		907	0.1078	0.0111	0.1510	916	0.152497	0.000000	16	99	10	
13	All (NL)	F	6–11	870		870	0.0799	0.0217	0.1449	916	0.152497	0.020623	16	73	20	
20	All (NL)	F	70+	792		792	0.0805	0.0240	0.1319	792	0.131874	0.000000	17	64	19	
40	Low	F	70+	792	0	792		0.0240	0.1319	792	0.131874	0.000000	17			19
16	All (NL)	F	30–39	751		751	0.1464	0.0277	0.1249	792	0.131874	0.131874	17	116	22	
												1.000000		**2,242**	**495**	**728**
														2,216	**489**	**716**
												Net inc.		+27	+6	+12

Sampling messages for 2nd Half of Year 3 of the CSFII/DHKS

Message number	Characteristics of persons to be included in sample				Proportion of sample households to be assigned message
	All income males	Low-income males	All income females	Low-income females	
1		50 to 59			0.234154
2		50 to 69			0.027715
3		50 to 69	1 to 2	50 to 59	0.052821
4	1 to 2	50 to 69	1 to 2	50 to 59	0.125764
5	1 to 2	30 to 39, 50 to 69	1 to 2	40 to 59	0.098727
6	1 to 2	6 to 11, 30 to 39, 50 to 69	1 to 5	40 to 59	0.093975
7	1 to 2, 60 to 69	6 to 11, 30 to 59	1 to 5	40 to 59	0.031410
8	1 to 2, 60 to 69	6 to 11, 30 to 59	1 to 5, 60 to 69	40 to 59	0.017732
9	1 to 2, 60+	6 to 11, 30 to 59	1 to 5, 60 to 69	40 to 59	0.034296
10	1 to 5, 60+	6 to 11, 30 to 59	1 to 5, 60 to 69	12 to 19, 40 to 59	0.021142
11	1 to 5, 20 to 29, 60+	6 to 11, 30 to 59	1 to 5, 60 to 69	12 to 19, 30 to 59	0.022081
12	1 to 5, 20 to 29, 50+	6 to 11, 30 to 49	1 to 5, 20 to 29, 60 to 69	12 to 19, 30 to 59	0.012156
13	1 to 5, 12 to 29, 50+	6 to 11, 30 to 49	1 to 5, 20 to 29, 60 to 69	12 to 19, 30 to 59	0.032670
14	1 to 5, 12 to 39, 50+	6 to 11, 40 to 49	1 to 5, 12 to 29, 50 to 69	30 to 49	0.015448
15	1 to 5, 12 to 39, 50+	6 to 11, 40 to 49	1 to 5, 12 to 29, 40 to 69	6 to 11, 30 to 39	0.027412
16	1+	—	1 to 29, 40 to 69	30 to 39	0.020623
17	1+	—	1+	—	0.131874

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Today's date: 6/5/96

2.B List of 62 Primary Sampling Units and Selected Characteristics

List of 62 CSFII Primary Sampling Units and Selected Characteristics

PSU code	PSU name	PSU stratum code	1990 number of housing units	1980 population	1990 population	1990 white population	1990 Hispanic population	1988 per capita income	1990 percent black population	1990 percent Hispanic population	1990 PMSA code	PSU probability of selection	Census region code	1990 PSU stratum code	PSU weight
101	Boston MA	A101	1,510,420	3,662,888	3,783,817	3,331,834	186,652	22,254	6.1794	4.3866		1.000000	1	A101	1.0000
103	Springfield MA	B104	233,093	581,831	602,878	525,290	49,672	17,280	6.1109	7.8563		0.146618	1	B104	6.8205
104	Providence RI	B105	377,097	865,771	916,270	835,537	44,040	16,678	3.8706	4.3203		0.198107	1	B105	5.0478
105	Newport RI	C101	37,475	81,383	87,194	81,838	1,712	18,890	3.8948	1.8212		0.015490	1	C101	64.5592
106	Nassau/Suffolk NY	A102	927,609	2,605,813	2,609,212	2,305,434	165,238	23,898	7.4339	5.8979	5380	1.000000	1	A102	1.0000
107	Kings/Richmond NY	A113	1,013,397	2,583,057	2,679,641	1,400,592	492,650	15,377	33.6961	15.5129	5600	1.000000	1	A113	1.0000
108	New York/Queens NY	A114	1,537,817	3,319,610	3,439,134	1,996,419	767,750	24,279	21.8130	19.4681	5600	1.000000	1	A114	1.0000
109	Bronx/Putnam NY	A115	897,844	2,372,294	2,428,071	1,429,070	629,262	20,434	24.5838	22.2763	5600	1.000000	1	A115	1.0000
112	Bergen/Passaic NJ	B101	487,329	1,292,970	1,278,440	1,043,437	147,868	25,422	8.2998	10.7587	875	0.310106	1	B101	3.2247
115	Atlantic City NJ	B103	192,414	276,385	319,416	260,185	17,972	21,541	13.8997	5.1754		0.075888	1	B103	13.1773
116	Philadelphia Area PA/NJ	A106	1,907,150	4,716,559	4,856,881	3,717,175	173,980	18,540	19.1462	3.2430	6160	1.000000	1	A106	1.0000
118	Harrisburg PA	B106	241,489	556,242	587,986	536,738	10,239	15,704	6.7131	1.5815		0.142306	1	B106	7.0271
119	Pittsburg PA	B102	879,811	2,218,870	2,056,705	1,867,138	11,728	16,499	8.1870	0.5168	6280	0.491706	1	B102	2.0337
202	Youngstown/Warren OH	B206	198,448	531,350	492,619	432,024	7,400	14,249	11.1449	1.3899		0.120035	2	B206	8.3309
204	Cleveland OH	B201	758,984	1,898,825	1,831,122	1,435,768	33,921	18,163	19.4208	1.7377	1680	0.379150	2	B201	2.6375
205	Cincinnati OH/IN	B202	471,904	1,135,254	1,169,159	970,022	6,568	17,047	15.8321	0.5051	1640	0.246260	2	B202	4.0608
207	Detroit MI	A203	1,714,351	4,488,024	4,382,299	3,332,697	85,216	18,605	21.5293	1.8384	2160	1.000000	2	A203	1.0000
210	Gary/Hammond IN	B205	230,254	642,733	604,526	460,532	48,384	14,418	19.3775	7.7793	2960	0.129129	2	B205	7.7442
211	Chicago City IL	A211	1,133,039	3,005,072	2,783,726	1,263,524	545,852	18,454	39.0739	19.1331	1600	1.000000	2	A211	1.0000
212	Cook/Dupage/McHenry IL	A212	1,247,316	3,055,329	3,286,248	2,835,223	188,975	19,634	7.4616	5.6568	1600	1.000000	2	A212	1.0000
214	Knox/Mercer IL	C202	30,966	80,893	73,683	69,568	1,525	13,819	3.9222	1.9937		0.017258	2	C202	57.9450
215	Peoria IL	B204	136,458	365,864	339,172	309,325	3,642	15,934	7.4128	1.0290		0.073613	2	B204	13.5846
216	St. Louis Area MO/IL	A205	1,006,011	2,376,971	2,444,099	1,985,500	26,014	17,797	17.3144	0.9994		1.000000	2	A205	1.0000
217	Pike/Ralls MO	C204	10,894	26,552	24,445	23,345	133	12,011	4.0213	0.4909		0.005768	2	C204	173.3693
218	Howard/Saline MO	C203	14,058	34,921	33,154	30,811	253	13,234	6.2858	0.7329		0.007861	2	C203	127.2156
220	Minneapolis Area MN/WI	A204	988,735	2,137,133	2,464,124	2,270,360	37,448	19,371	3.6406	1.4500		1.000000	2	A204	1.0000
221	Iowa City IA	B203	37,210	81,717	96,119	89,649	1,435	16,561	2.0589	1.4534		0.022057	2	B203	45.3371
224	Cheyenne/Rooks KS	C201	11,550	26,837	23,293	23,007	134	15,518	0.6354	0.5667		0.005474	2	C201	182.6665
301	Washington DC/MD/VA	A306	1,556,749	3,250,921	3,923,574	2,577,933	224,786	23,224	26.5557	5.3491		1.000000	3	A306	1.0000
303	Baltimore MD	A302	938,979	2,199,497	2,382,172	1,709,309	30,160	19,119	25.8615	1.0950		1.000000	3	A302	1.0000
305	Charlottesville VA	B307	51,932	113,568	131,107	109,049	1,384	17,147	14.4119	1.0015		0.027293	3	B307	36.6401
306	Norfolk/Virginia Beach VA	B302	537,101	1,160,311	1,396,107	947,160	32,329	15,109	28.5145	2.0417		0.294005	3	B302	3.4013
307	Johnson City Area TN/VA	B309	183,995	433,638	436,047	424,751	1,690	12,439	2.0468	0.3816		0.088921	3	B309	11.2459
310	Greensboro/Winston-Salem NC	B305	399,004	851,444	942,091	747,835	7,096	16,606	19.3489	0.6801		0.208936	3	B305	4.7861
312	Fayetteville NC	B301	98,360	247,160	274,566	170,069	13,298	12,612	31.8670	4.3771		0.058353	3	B301	17.1372
313	Nashville TN	B306	410,968	850,505	985,026	818,424	7,665	16,265	15.4665	0.7153		0.200268	3	B306	4.9933
314	Chattanooga Area TN/GA	B308	181,276	426,540	433,210	370,586	2,539	14,273	13.4387	0.5427		0.091509	3	B308	10.9279
315	Atlanta GA	A301	1,174,007	2,138,143	2,833,511	2,020,017	57,169	18,394	25.9802	1.8589		1.000000	3	A301	1.0000
316	Greene/Lincoln GA	C301	17,053	37,987	39,595	23,404	262	11,846	40.5127	0.4597		0.008265	3	C301	120.9880
318	Tallahassee FL	B303	96,184	190,329	233,598	158,398	5,679	13,712	30.0632	2.2530		0.053781	3	B303	18.5940
321	Miami/Ft. Lauderdale FL	A305	1,399,948	2,643,766	3,192,582	2,438,598	1,061,846	18,313	18.5254	32.1588	JOIN	1.000000	3	A305	1.0000

list continues

PSU code	PSU name	PSU stratum code	1990 number of housing units	1980 population	1990 population	1990 white population	1990 Hispanic population	1988 per capita income	1990 percent black population	1990 percent Hispanic population	1990 PMSA code	PSU probability of selection	Census region code	1990 PSU stratum code	PSU weight
325	Franklin/Madison AR	C305	11,410	26,078	26,515	26,079	290	10,702	0.3847	1.0899		0.005200	3	C305	192.3220
326	Pope AR	C304	18,430	38,964	45,883	44,126	423	11,554	2.4606	0.9001		0.008975	3	C304	111.4268
329	Dallas TX	A303	1,072,830	1,957,430	2,553,362	1,854,577	368,884	18,620	16.0873	14.1296	1920	1.000000	3	A303	1.0000
330	Anderson TX	C302	16,909	38,381	48,024	33,354	3,953	11,165	23.2030	8.1230		0.010055	3	C302	99.4484
331	Austin TX	B304	343,886	536,693	781,572	600,023	159,942	15,331	9.2447	20.1279		0.165082	3	B304	6.0576
333	Houston TX	A304	1,355,821	2,734,617	3,301,937	2,188,370	707,536	16,192	18.5116	20.9923	3360	1.000000	3	A304	1.0000
334	Big Spring TX	C303	13,651	33,142	32,343	25,282	8,607	13,510	3.7875	26.4539		0.006367	3	C303	157.0481
401	Seattle WA	B403	831,285	1,607,618	1,972,961	1,713,068	54,993	19,667	4.1083	2.6988	7600	0.388604	4	B403	2.5733
402	Portland OR	B404	512,664	1,105,750	1,239,842	1,124,963	44,049	16,833	3.1210	3.4848	6440	0.277000	4	B404	3.6101
403	Missoula MT	C401	33,466	76,016	78,687	75,650	962	13,010	0.2351	1.2060		0.019195	4	C401	52.0965
404	Boise City ID	B405	80,849	173,125	205,775	198,888	5,556	15,911	0.4656	2.6835		0.044858	4	B405	22.2923
407	San Francisco/Oakland CA	A407	1,500,289	3,250,605	3,686,592	2,431,614	506,361	23,372	11.5641	13.3887	JOIN	1.000000	4	A407	1.0000
408	San Jose CA	B402	540,240	1,295,071	1,497,577	1,032,190	314,564	23,181	3.7535	20.7626	7400	0.349098	4	B402	2.8645
409	Merced CA	B401	58,410	134,557	178,403	120,280	58,107	12,782	4.7774	32.2153		0.043956	4	B401	22.7499
411	Riverside/San Bernardino CA	A404	1,026,179	1,558,215	2,588,793	1,930,095	686,096	15,677	6.8961	26.1396	6780	1.000000	4	A404	1.0000
412	Los Angeles City CA	A412	1,299,963	2,968,528	3,485,398	1,841,182	1,391,411	18,790	13.9919	38.9633	4480	1.000000	4	A412	1.0000
413	Los Angeles/Long Beach CA	A413	1,863,380	4,508,711	5,377,766	3,193,921	1,959,831	18,790	9.3961	35.9818	4480	1.000000	4	A413	1.0000
414	Anaheim/Santa Ana CA	A401	875,072	1,932,921	2,410,556	1,894,593	564,828	22,753	1.7706	23.2853	360	1.000000	4	A401	1.0000
415	San Diego CA	A406	946,240	1,861,846	2,498,016	1,872,256	510,781	17,576	6.3773	20.0708		1.000000	4	A406	1.0000
418	Phoenix AZ	A405	952,041	1,509,227	2,122,101	1,799,420	345,498	16,815	3.4992	16.1201		1.000000	4	A405	1.0000
420	Cibola/Valencia NM	C402	26,473	61,115	69,029	48,936	30,842	10,886	1.0010	44.5871		0.017134	4	C402	58.3643

3.A CSFII/DHKS 1996 Data Collection Instruments

1996

OMB #: 0586-0014
Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996
SCREENER

CASE #: _____

ADDRESS: _____

_____

MISSED STRUCTURE: _____ YES _____ NO

MISSED DU: _____ YES _____ NO

CONTACT DAYS _____ _____ _____

SAMPLE MESSAGE: _____

INTRODUCTION: Hello, I'm (YOUR NAME) and we are conducting a survey for the United States Department of Agriculture. A letter and brochure were sent to you recently explaining the What We Eat in America Survey which is about what people eat and drink. (IF RESIDENT DOES NOT REMEMBER, HAND NEW COPY OF LETTER AND BROCHURE.)

First, I would like to verify your address. Is this (READ ADDRESS FROM LABEL ABOVE)? [MAKE CORRECTIONS TO ADDRESS LABEL IF NECESSARY. IF AT CORRECT ADDRESS, CONTINUE WITH SCREENER. IF NOT AT CORRECT ADDRESS, THANK RESPONDENT AND LEAVE.]

I need to determine if any members of your household are eligible to participate. To do this, I'd like to ask some questions about the persons who live here. Each eligible household that agrees to participate will receive a gift. Before we begin, I want to assure you that your answers will be combined with answers from other households to make totals and averages, in which no person or family will be identified.

INTERVIEWER NAME: _____

INTERVIEWER ID: |__|__|__|

DATE OF SCREENER: |__|__|-|__|__|-19 |__|__|
MO DAY YR

RESPONDENT'S FIRST NAME: _____

LINE LETTER: |__|

DISPOSITION CODE: _____

|__|__|:|__|__| TIME STARTED
AM 1
PM 2

|__|__|:|__|__| TIME ENDED
AM 1
PM 2

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ____ YES ____ NO

BATCH #: _____

Conducted for the United States Department of Agriculture by Westat Inc., Rockville, MD

TIME STARTED _____ AM PM

1. Including yourself, how many people live in this household? |__|__|
NUMBER

2. What is the first name of the person or one of the persons who owns or rents this home?
[ENTER NAME ON LINE A OF ENUMERATION TABLE BELOW.]
[IF ONLY ONE PERSON LIVES IN HOUSEHOLD, GO TO Q6. OTHERWISE CONTINUE.]

3. What is the first name of (REFERENCE PERSON)'s spouse, if any, who lives in this household?
[ENTER NAME ON LINE B OF ENUMERATION TABLE BELOW.]

ENUMERATION TABLE: AFTER LISTING HOUSEHOLD MEMBERS, RECORD NAME AND LINE LETTER OF SCREENER RESPONDENT ON FRONT COVER. ASK QUESTIONS 8 - 13 GOING ACROSS FOR EACH PERSON.

LINE LTR	ENUMERATION QUESTIONS 2-7: FIRST NAME	8. What is (NAME)'s relationship to (REFERENCE PERSON)?	9. HAND CARD S1 Which of the groups on this card best describes (NAME)'s race?
A		REFERENCE PERSON |0|0|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
B		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
C		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
D		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
E		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
F		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
G		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
H		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3
I		|__|__|	WHITE ..... 1 AM. INDIAN ..... 4 BLACK ..... 2 OTHER ..... 5 ASIAN 3

4. And the other members of this household who are related to (REFERENCE PERSON). What are their first names? Let's begin with the oldest.
[ENTER NAME(S) IN AGE ORDER ON ENUMERATION TABLE BELOW.]

5. Are there any other people living here who are not related to (REFERENCE PERSON)?
[IF YES, ENTER NAME(S) ON ENUMERATION TABLE BELOW]

6. [I have listed (READ ALL NAMES).] Is there anyone else living here now, such as friends, relatives, or roomers?
[IF YES, ENTER NAME(S) ON ENUMERATION TABLE BELOW.]

7. Have we missed other household members now away from home who usually live here, for example, someone away on vacation or business, in a hospital, or a student living in a dormitory, fraternity, or sorority?
[IF YES, ENTER NAME(S) ON ENUMERATION TABLE BELOW.]

10. HAND CARD S2 Do any of the groups on this card represent (NAME)'s national origin?	11. What is (NAME)'s date of birth? (MM/DD/YYYY)	12. AGE CHART (ASK IF NECESSARY: How old was (NAME) on (his/her) last birthday?) IF LESS THAN 1, RECORD AGE IN MONTHS.	13. CODE SEX. (ASK IF NOT OBVIOUS: Is (NAME) male or female?)		SAMPLE PERSON (SP) COLUMN	
					√	NUMBER
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__
MEXICAN ..... 1 OTHER SPANISH/ PUERTO RICAN .. 2 HISPANIC ..... 4 CUBAN..... 3 NONE OF ABOVE ... 5	__/__/__ _____	___ YEARS OR 0___ MONTHS	MALE ..... 1 FEMALE 2			__

THIS PAGE INTENTIONALLY BLANK

PLACE BOX 1 LABEL HERE

|__|

14. HAND CARD S3

SELECT CARD FOR NUMBER OF HOUSEHOLD MEMBERS. CARD SELECTED = S3-|__|__|. Here is a card showing different sources from which households may receive income. Please think for a moment about the various sources from which the members of this household received income last year – during **1995**.

Thinking about all of the sources of income, please tell me whether the total income received by the members of this household during 1995 was more or less than the amount at the bottom of this card.

MORE	1	(BOX 3)	
LESS	2	(BOX 2)	>
REFUSED	7		14a
DON'T KNOW	8		14a

14a. ARE THERE ANY CHILDREN LESS THAN 6 YEARS OF AGE?

YES	1	(Q14b)
NO	2	(BOX 3)

14b. IS THERE A MALE 18 YEARS OF AGE OR OLDER?

YES	1	(BOX 3)
NO	2	(BOX 2) >

BOX 2. SP SELECTION

PLACE A CHECK MARK IN SP COLUMN FOR EACH PERSON IN AGE AND SEX CATEGORY MARKED YES IN BOX 1. THEN GO TO BOX 3.

PLACE BOX 3 LABEL HERE

BOX 4. SP SELECTION

PLACE A CHECK MARK IN SP COLUMN FOR EACH PERSON IN AGE AND SEX CATEGORY MARKED YES IN BOX 3. THEN GO TO BOX 5.

BOX 5. ENUMERATION TABLE REVIEW

STEP A. ARE THERE ANY CHECK MARKS IN SP COLUMN? IF YES, GO TO STEP B; OTHERWISE GO TO Q15, PAGE 5

STEP B. ARE THERE ANY CHILDREN LESS THAN 1 YEAR OLD? IF YES, GO TO STEP C; OTHERWISE, GO TO STEP D.

STEP C. PLACE A CHECK MARK IN THE SP COLUMN FOR EACH CHILD UNDER 1 YEAR OLD.

STEP D. ASSIGN SEQUENTIAL SP NUMBERS TO EACH PERSON WITH A CHECK MARK IN SP COLUMN.

15. Would you give me your telephone number in case my office wants to check my work?

TELEPHONE NUMBER: (_____) _____

NO TELEPHONE 2
REFUSED 7

WAS ANY SAMPLE PERSON SELECTED?

YES 1 (Q16)
NO 2 (Q19)

16. Are you or any members of this household planning to move within the next 6 weeks?

YES 1 (Q17)
NO 2 (Q19)

17. When are (you/he/she/they) planning to move?

_____
MONTH

RECORD ANY AVAILABLE ADDRESS INFORMATION:

_____

_____

18. Please give me the name and telephone number of two relatives or friends who would know where the members of your household could be reached in case we have trouble reaching you. Please give me the names of persons who are not currently living in the household.

NAME #1: _____

TELEPHONE NUMBER: (_____) _____ |__|

NAME #2: _____

TELEPHONE NUMBER: (_____) _____

19. DOES THE SCREENER LABEL REQUIRE THE MISSED DU PROCEDURE?

1 O YES

- COMPLETE MISSED DU PROCEDURE AND FORM NOW. THEN:
- IF SP SELECTED, CONTINUE WITH HH QUESTIONNAIRE.
- IF NO SP SELECTED, TERMINATE.

2 O NO

- IF SP SELECTED, CONTINUE WITH HH QUESTIONNAIRE.
- IF NO SP SELECTED, TERMINATE.

|__|

TIME ENDED _____ AM PM

MISSED DU PROCEDURE

A MISSED DU IS A UNIT WITHIN OR ATTACHED TO THE STRUCTURE IN WHICH THE SAMPLED DU IS LOCATED, SUCH AS A BASEMENT OR ATTIC APARTMENT OR AN APARTMENT OVER AN ATTACHED GARAGE. IT MAY ALSO BE AN APARTMENT WITHIN A MULTI UNIT STRUCTURE.

IF TWO OR MORE UNITS AT THIS ADDRESS (FOR EXAMPLE, AN APARTMENT BUILDING), SKIP TO STEP 2; OTHERWISE, BEGIN WITH STEP 1.

1. AFTER COMPLETING SCREENER, SAY: We want to be sure that every household in this area has been given a chance to participate in this important survey. Are there any other living quarters at this address such as basement or attic apartments that we may have missed?

2. CHECK IN THE LOBBY AND AROUND THE OUTSIDE OF THIS (HOUSE/BUILDING) FOR ADDITIONAL UNITS OR ENTRANCES TO THIS ADDRESS.

3. RECORD DISCOVERED DUs ON FORM BELOW. NUMBER DISCOVERED DUs SEQUENTIALLY WITHIN SEGMENTS BEGINNING WITH DU NUMBER 501. EACH NUMBER MUST BE ASSIGNED ONLY ONCE WITHIN A SEGMENT. IF NO ADDITIONAL DUs, CHECK THE CIRCLE IN THE UPPER LEFT-HAND CORNER OF THE FORM.

4. IF 1 TO 4 MISSED DUs ARE DISCOVERED, FILL OUT AN ASSIGNMENT BOX ON A BLANK SCREENER FOR EACH (INSTRUCTIONS FOR HOW TO DO THIS ARE IN THE INTERVIEWER MANUAL) AND CONDUCT SCREENER INTERVIEW. ADD THE DISCOVERED DUs TO A NEW LISTING SHEET AND TO ALL COPIES OF THE INTERVIEWER REPORTS.

5. IF 5 OR MORE DUs ARE DISCOVERED, CALL SUPERVISOR FOR INSTRUCTIONS BEFORE YOU DO ANY ADDITIONAL SCREENER INTERVIEWS. ADD ALL OF THE DISCOVERED DUs TO A NEW LISTING SHEET AND THE SELECTED SAMPLE DUs TO ALL COPIES OF THE INTERVIEWER REPORTS. THEN FILL OUT AN ASSIGNMENT BOX ON A BLANK SCREENER FOR EACH SELECTED SAMPLE DU AND CONDUCT SCREENER INTERVIEW.

MISSED DU FORM

CHECK (√) IF NO MISSED DU AT SAMPLED STRUCTURE: ○

PSU # _____ SEG # _____

DU # ASSIGNED	ADDRESS OF DISCOVERED DU

TOTAL ADDITIONAL DUs

NEIGHBOR INFORMATION |__|

PLACE BOX 6 LABEL HERE

|__|

20. ARE THERE ANY CHILDREN LESS THAN 6 YEARS OF AGE?

YES 1 (Q21)
NO ..... 2 (BOX 8)

21. IS THERE A MALE 18 YEARS OF AGE OR OLDER?

YES ..... 1 (BOX 8)
NO ..... 2 (BOX 7) ——>

BOX 7

- IF ONE OR MORE PERSONS IN AGE AND SEX CATEGORIES IN BOX 6, RECORD AGE AND SEX IN SP CHART BELOW. THEN GO TO BOX 8.
- IF NO PERSONS IN AGE AND SEX CATEGORIES IN BOX 6, GO TO BOX 8.

PLACE BOX 8 LABEL HERE

|__|

|__|

BOX 9. SAMPLE PERSON SELECTION

RECORD AGE AND SEX IN SAMPLE PERSON CHART BELOW FOR EACH PERSON IN AGE AND SEX CATEGORY IN BOX 8.

SAMPLE PERSON (SP) CHART		
AGE OR AGE RANGE	SEX	SAMPLE PERSON NUMBER

BOX 10. ASSIGNING SP NUMBERS

1. IF PERSONS ARE LISTED IN SAMPLE PERSON CHART, ASK IF THERE ARE CHILDREN UNDER ONE YEAR OF AGE. IF YES, RECORD AGE AND SEX OF CHILDREN UNDER ONE YEAR OF AGE IN SAMPLE PERSON CHART.
2. RECORD SEQUENTIAL SAMPLE PERSON NUMBER FOR EACH PERSON RECORDED IN SAMPLE PERSON CHART ABOVE.

RECORD NAME, ADDRESS, AND TELEPHONE NUMBER OF THE INDIVIDUALS PROVIDING THIS INFORMATION.

1. _____

2. _____

1996

OMB #: 0586-0014

Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

HOUSEHOLD QUESTIONNAIRE

PLACE CASE LABEL HERE

INTERVIEWER NAME: _____

INTERVIEWER ID: |___|___|___|

DATE OF INTERVIEW: |__|__|-|__|__|- 19|__|__|
MO DA YR

RESPONDENT'S FIRST NAME: _____

LINE LETTER: |___|

|___|___|:|___|___| AM 1
TIME STARTED PM 2

|___|___|:|___|___| AM 1
TIME ENDED PM 2

CHECK SCREENER. WAS Q14 ANSWERED "MORE" OR "LESS"?

YES 1
NO 2

[COPY ANSWER INTO BOX 5, PG. 13]

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ____ YES ____ NO

BATCH #: _____

Conducted for the United States Department of Agriculture
by Westat Inc., Rockville, MD

TIME STARTED _____ AM PM

HOUSEHOLD QUESTIONNAIRE

1. Let's begin by talking about the general food shopping practice of this household. On the average, how often does someone do a major food shopping for this household? Would you say . . .

more than once a week,	1	
once a week,	2	
once every two weeks,	3	
once a month or less, or	4	
never?	5	(Q3)

2. In what kind of store is this major food shopping usually done? Is it . . .

a supermarket,	1	
a small store, or	2	
someplace else? (SPECIFY)	3	
_____		|__|__|

3. During the last three months, how much money has this household spent per week or per month at grocery stores, including the stores' salad bars, soup bars, delis, etc.? Include purchases made with food stamps.

$|__|__|__|,|__|__|__|.00 PER WEEK 1
OR
$|__|__|__|,|__|__|__|.00 PER MONTH 2

4. You said this household spent (AMOUNT IN Q3) per (week/month). About how much of this amount, if any, was for nonfood items, such as cleaning or paper products, food bought for feeding a pet, or cigarettes? (IF NONE, ENTER "0".)

$|__|__|__|,|__|__|__|.00 PER WEEK 1
OR
$|__|__|__|,|__|__|__|.00 PER MONTH 2

5. During the last three months, how much has this household spent per week or per month on food at specialty stores – such as bakeries, liquor stores, delicatessens, meat markets, vegetable stands, health food stores, and other similar places – when the food was brought into your home? (IF NONE, ENTER "0".)

$|__|__|__|,|__|__|__|.00 PER WEEK 1
OR
$|__|__|__|,|__|__|__|.00 PER MONTH 2

6. During the last three months, how much has this household spent per week or per month at fast food or carryout places when the food was brought into your home? (IF NONE, ENTER "0".)

$|__|__|__|,|__|__|__|.00 PER WEEK 1
OR
$|__|__|__|,|__|__|__|.00 PER MONTH 2

7. During the last three months, what has been this household's usual amount of money spent per week or per month for food bought and eaten away from home? Include food and beverages that never entered your home, that is, eaten at restaurants, fast food places, cafeterias at work or at school or purchased from vending machines, for all household members. (IF NONE, ENTER "0".)

$|__|__|__|,|__|__|__|.00 PER WEEK 1

OR

$|__|__|__|,|__|__|__|.00 PER MONTH 2

Now I have a few questions about the persons who live in this household.

BOX A

CHECK SCREENER. IS THERE:

NO FEMALE ADULT IN HOUSEHOLD?	1	(CIRCLE CODE 2 IN Q8)
1 FEMALE ADULT IN HOUSEHOLD?	2	(CONFIRM & RECORD FIRST NAME AND LINE LETTER FROM SCREENER IN Q8)
MORE THAN 1 FEMALE ADULT IN HOUSEHOLD?	3	(Q8)

8. Who is the female head of household? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER) (IF NECESSARY, SAY: For the purposes of this survey, the female head of household is the woman who other household members think of as being in charge of household matters, that is, the woman of the house.)

FEMALE HEAD NAME: _____ LINE LETTER: |__|

NO FEMALE HEAD 2

BOX B

CHECK SCREENER. IS THERE:

NO MALE ADULT IN HOUSEHOLD?	1	(CIRCLE CODE 2 IN Q9)
1 MALE ADULT IN HOUSEHOLD?	2	(CONFIRM & RECORD FIRST NAME AND LINE LETTER FROM SCREENER IN Q9)
MORE THAN 1 MALE ADULT IN HOUSEHOLD?	3	(Q9)

9. Who is the male head of household? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER)

MALE HEAD NAME: _____ LINE LETTER: |__|

NO MALE HEAD 2

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BOX C

RECORD FIRST NAME(S) AND LINE LETTER(S) OF ALL HOUSEHOLD MEMBERS WHO ARE **15 YEARS OF AGE OR OLDER** STARTING WITH REFERENCE PERSON ON LINE LETTER A. THEN ASK Qs 10-16 IN SEQUENCE FOR EACH PERSON.

CODER USE ONLY: |__|__|	LINE LETTER: | A |	LINE LETTER: |__|
10. HAND CARD H1 — Looking at this card, what is the highest grade or year of regular school (you have/NAME has) ever completed? (CIRCLE CODE FOR HIGHEST GRADE OR YEAR.)	NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 (1) 14 (2) 15 (3) 16 (4) 17+ (5+)	NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 (1) 14 (2) 15 (3) 16 (4) 17+ (5+)
11. Last week, did (you/NAME) work at all at a paid job or in (your/NAME's) own business or farm?	YES ..... 1 (Q13) NO 2	YES ..... 1 (Q13) NO 2
12. (Do you/Does NAME) have a paid job from which (you were/NAME was) temporarily absent?	YES ..... 1 (Q14) NO 2 (Q16)	YES ..... 1 (Q14) NO 2 (Q16)
13. How many hours did (you/NAME) work at all jobs in the last week? Include all overtime hours that (you/NAME) worked and hours on any part-time jobs as well as (your/NAME's) principal job.	|__|__|__| # OF HOURS	|__|__|__| # OF HOURS
14. How many hours a week (do (you/does NAME) usually work?	|__|__|__| # OF HOURS	|__|__|__| # OF HOURS
15. HAND CARD H2 — Which of the categories on this card comes closest to describing the paid work (you do/NAME does).	01 02 03 04 05 06 07 08 (NP or Q17)	01 02 03 04 05 06 07 08 (NP or Q17)
16. HAND CARD H3 — Which of the reasons on this card best describes why (you were/NAME was) not working at a paid job last week? (CIRCLE ONLY ONE CODE)	LOOKING FOR WORK .....01 GOING TO SCHOOL .....02 KEEPING HOUSE .....03 RETIRED .....04 UNABLE TO WORK .....05 OTHER (SPECIFY) .....06 _____ _____ |__|__|	LOOKING FOR WORK .....01 GOING TO SCHOOL .....02 KEEPING HOUSE .....03 RETIRED .....04 UNABLE TO WORK .....05 OTHER (SPECIFY) .....06 _____ _____ |__|__|

_____ LINE LETTER: |___|	_____ LINE LETTER: |___|	_____ LINE LETTER: |___|
NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)	NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)	NEVER ATTENDED SCHOOL OR KINDERGARTEN ONLY: 00 ELEMENTARY: 01 02 03 04 05 06 07 08 HIGH SCHOOL: 09 10 11 12 or GED COLLEGE: 13 14 15 16 17+ (1) (2) (3) (4) (5+)
YES ..... 1 (Q13) NO 2	YES ..... 1 (Q13) NO 2	YES ..... 1 (Q13) NO 2
YES ..... 1 (Q14) NO 2 (Q16)	YES ..... 1 (Q14) NO 2 (Q16)	YES ..... 1 (Q14) NO 2 (Q16)
|___|___|___| # OF HOURS	|___|___|___| # OF HOURS	|___|___|___| # OF HOURS
|___|___|___| # OF HOURS	|___|___|___| # OF HOURS	|___|___|___| # OF HOURS
01 02 03 04 05 06 07 08 (NP or Q17)	01 02 03 04 05 06 07 08 (NP or Q17)	01 02 03 04 05 06 07 08 (NP or Q17)
LOOKING FOR WORK .....01 GOING TO SCHOOL .....02 KEEPING HOUSE .....03 RETIRED .....04 UNABLE TO WORK .....05 OTHER (SPECIFY) .....06 _____ _____ |__|__|	LOOKING FOR WORK .....01 GOING TO SCHOOL .....02 KEEPING HOUSE .....03 RETIRED .....04 UNABLE TO WORK .....05 OTHER (SPECIFY) .....06 _____ _____ |__|__|	LOOKING FOR WORK .....01 GOING TO SCHOOL .....02 KEEPING HOUSE .....03 RETIRED .....04 UNABLE TO WORK .....05 OTHER (SPECIFY) .....06 _____ _____ |__|__|

17. In regard to this dwelling, is the property . . .

owned or being bought by someone living in this household, ... 1
rented with payment required, or 2
occupied without payment of rent required? 3

18. HAND CARD H4 Looking at this card, what is the main source of the water used for cooking in your home? Is it . . .

the community water supply, ... 1
your own well or rain cistern, ... 2
your own spring or a public spring, ... 3
bottled water you purchase, or 4
something else? (SPECIFY) 5
_____ |__|__|

19. HAND CARD H4 What is the main source of the water used in your home for preparing beverages such as coffee, tea, juices, and baby formula? (Is it . . .

the community water supply, ... 1
your own well or rain cistern, ... 2
your own spring or a public spring, ... 3
bottled water you purchase, or 4
something else?) (SPECIFY) 5
_____ |__|__|

20. HAND CARD H4 What is the main source of plain drinking water in your home? (Is it . . .

the community water supply, ... 1
your own well or rain cistern, ... 2
your own spring or a public spring, ... 3
bottled water you purchase, or 4
something else?) (SPECIFY) 5
_____ |__|__|

21. Returning to the topic of food, who usually plans the meals? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER. IF NOT A HOUSEHOLD MEMBER, ENTER "Y" AS THE LINE LETTER.)

IF ALL HOUSEHOLD MEMBERS, ENTER "Z" HERE: |___| AND GO TO NEXT QUESTION.

NAME: _____

LINE LETTER: |___|

NAME: _____

LINE LETTER: |___|

NAME: _____

LINE LETTER: |___|

22. Who usually does the major food shopping? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER. IF NOT A HOUSEHOLD MEMBER, ENTER "Y" AS THE LINE LETTER.)

IF ALL HOUSEHOLD MEMBERS, ENTER "Z" HERE: |___| AND GO TO NEXT QUESTION.

NAME: _____

LINE LETTER: |___|

NAME: _____

LINE LETTER: |___|

NAME: _____

LINE LETTER: |___|

23. And who usually prepares the food? (RECORD FIRST NAME AND LINE LETTER FROM SCREENER. IF NOT A HOUSEHOLD MEMBER, ENTER "Y" AS THE LINE LETTER.)

IF ALL HOUSEHOLD MEMBERS, ENTER "Z" HERE: |___| AND GO TO NEXT QUESTION.

NAME: _____

LINE LETTER: |___|

NAME: _____

LINE LETTER: |___|

NAME: _____

LINE LETTER: |___|

24. Is anyone in this household on any kind of diet either to lose weight or for some other health-related reason?

YES 1
NO ..... 2 (BOX 1)

25. HAND CARD H5 Which of these diets on this card (are/is) (you/he/she/they) on? (CIRCLE ALL THAT APPLY)

WEIGHT LOSS OR LOW CALORIE DIET 01
LOW FAT OR CHOLESTEROL DIET 02
LOW SALT OR SODIUM DIET 03
SUGAR FREE OR LOW SUGAR DIET 04
LOW FIBER DIET 05
HIGH FIBER DIET 06
DIABETIC DIET 07
OTHER DIET (PLEASE DESCRIBE) 08

_____ |__|__|

_____

BOX 1

CHECK SCREENER. ARE THERE ANY **FEMALES** IN THE HOUSEHOLD **10 THROUGH 55** YEARS OF AGE?

YES 1 (Q26)
NO ..... 2 (BOX 2)

26. Is anyone in this household now pregnant?

YES 1
NO ..... 2 (BOX 2)

27. Please tell me who. (RECORD FIRST NAME AND LINE LETTER FROM SCREENER.)

NAME: _____

LINE LETTER: |___|

28. How many months pregnant (are you/is NAME)?

|__|__| MONTHS PREGNANT

LESS THAN ONE MONTH 00

NAME: _____

LINE LETTER: |___|

|__|__| MONTHS PREGNANT

LESS THAN ONE MONTH 00

BOX 2

CHECK SCREENER. ARE THERE ANY **CHILDREN** IN THE HOUSEHOLD **3 YEARS OLD OR LESS**?

YES 1 (Q29)
NO 2 (Q32)

29. Are any children currently being breast fed?

YES 1
NO 2 (Q32)

30. Please tell me who. (RECORD FIRST NAME AND LINE LETTER FROM SCREENER.)

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

31. Please tell me the name of the woman who is breast feeding (CHILD). (RECORD FIRST NAME AND LINE LETTER FROM SCREENER FOR EACH CHILD.)?

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

32. Is anyone in this household receiving benefits under the WIC Program at the present time? (That is the Women, Infants and Children Program.)

YES 1
NO ..... 2 } (BOX 3)
DON'T KNOW ..... 8 }

33. Please tell me who in this household is receiving WIC benefits. (RECORD FIRST NAME AND LINE LETTER FROM SCREENER.)

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

NAME: _____

LINE LETTER: |__|

34. How long (have you/has NAME) been receiving WIC benefits?

|__|__| MONTHS 1
OR
|__|__| YEARS 2

|__|__| MONTHS 1
OR
|__|__| YEARS 2

|__|__| MONTHS 1
OR
|__|__| YEARS 2

|__|__| MONTHS 1
OR
|__|__| YEARS 2

|__|__| MONTHS 1
OR
|__|__| YEARS 2

BOX 3

CHECK SCREENER. ARE THERE ANY **CHILDREN** IN THE HOUSEHOLD AGE **5 THROUGH 18** YEARS? (REMEMBER TO INCLUDE 18 YEAR OLDS)

YES ..... 1 [RECORD FIRST NAME AND LINE LETTER IN GRID BELOW. THEN ASK Qs 35-41 IN SEQUENCE FOR EACH CHILD.]
NO ..... 2 (BOX 4)

CODER USE ONLY: |___|___|

NAME: _____ LINE LETTER: |___|	NAME: _____ LINE LETTER: |___|	NAME: _____ LINE LETTER: |___|

Now I would like to ask about school breakfast and lunch programs.

35. Does (NAME) attend a kindergarten, grade school, junior or high school?	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)
36. Does (NAME) attend a school which serves school lunches? These are complete lunches costing a fixed price every day.	YES ..... 1 NO 2 (Q39)	YES ..... 1 NO 2 (Q39)	YES ..... 1 NO 2 (Q39)
37. During the school year, approximately how many times a week does (NAME) usually get a complete school lunch?	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)
38. Does (NAME) get these lunches free, at a reduced price or does (NAME) pay full price?	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8
39. Does (NAME) attend a school which serves a complete breakfast costing a fixed price every day?	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)
40. During the school year, approximately how many times a week does (NAME) usually get a complete breakfast at school?	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)
41. Does (NAME) get these breakfasts free, at a reduced price or does (NAME) pay full price?	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8

NAME: _____ LINE LETTER: |___|	NAME: _____ LINE LETTER: |___|	NAME: _____ LINE LETTER: |___|	NAME: _____ LINE LETTER: |___|
YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)
YES ..... 1 NO 2 (Q39)	YES ..... 1 NO 2 (Q39)	YES ..... 1 NO 2 (Q39)	YES ..... 1 NO 2 (Q39)
TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE 0 (Q39)
FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8
YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)	YES ..... 1 NO ..... 2 (NP)
TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)	TIMES PER: |_|_| WEEK .....1 OR |_|_| MONTH ..2 NONE .....0 (NP)
FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8	FREE ..... 1 REDUCED PRICE ..... 2 FULL PRICE ..... 3 DON'T KNOW 8

BOX 4

CHECK SCREENER. ARE THERE ANY **CHILDREN** IN THE HOUSEHOLD AGE **1 THROUGH 5** YEARS? (REMEMBER TO INCLUDE 5 YEAR OLDS)

YES ..... 1 [RECORD FIRST NAME AND LINE LETTER BELOW. THEN ASK Q42.]
NO 2 (Q43)

CODER USE ONLY: |__|__|	NAME: _____ LINE LETTER: |__|	NAME: _____ LINE LETTER: |__|	NAME: _____ LINE LETTER: |__|	NAME: _____ LINE LETTER: |__|
42. Does (NAME) attend a child care program which gives (NAME) any meals or snacks?	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2

43. Which of these statements best describes the food eaten in your household in the last 3 months–enough of the kinds of food we want to eat; enough but not always the kinds of food we want to eat; sometimes not enough to eat; or often not enough to eat?

ENOUGH OF THE KINDS OF FOOD WE WANT TO EAT ..... 1 (BOX 5)
ENOUGH BUT NOT ALWAYS THE KINDS OF FOOD WE WANT TO EAT ..... 2 (BOX 5)
SOMETIMES NOT ENOUGH TO EAT 3
OFTEN NOT ENOUGH TO EAT 4

44. In which of the last three months did your household not have enough to eat? (CIRCLE ALL THAT APPLY.)

LAST MONTH 1
THE MONTH BEFORE LAST 2
TWO MONTHS BEFORE LAST 3

45. Which of the following reasons explain why your household did not have enough food:

a. Did not have enough money, food stamps, or WIC vouchers to buy food or beverages.

YES 1
NO 2

b. Did not have working appliances for storing or preparing foods (such as stove or refrigerator).

YES 1
NO 2

c. Did not have transportation or had transportation problems.

YES 1
NO 2

d. Some other reason?

YES (EXPLAIN) 1
_____
_____ |__|__|
NO 2

46. Last month, how many days did your household not have food, or money or food stamps to buy food?

|__|__|
NUMBER OF DAYS

BOX 5

CHECK COVER. WAS SCREENER Q14 ANSWERED "MORE" OR "LESS"?

YES 1 (Q48)
NO 2

47. HAND CARD S3

SELECT CARD FOR NUMBER OF HOUSEHOLD MEMBERS. CARD SELECTED = S3-|__|__|.
Here is a card showing different sources from which households may receive income. Please think for a moment about the various sources from which the members of this household received income last year – during **1995**.

Thinking about all of the sources of income, please tell me whether the total income received by the members of this household during **1995** was more or less than the amount at the bottom of this card.

LAST YEAR

MORE 1
LESS 2

48. Did any member of this household receive any income from their own business or farm in **1995**?

LAST YEAR

YES 1
NO 2 (Q50)

49. What was the total net income after business expenses received in **1995** by all members of this household who have their own business or farm?

LAST YEAR

TOTAL NET INCOME $|__|__|__|,|__|__|__|.00

50. Did any member of this household receive any income from interest, dividends, or annuities in **1995**?

LAST YEAR

YES 1
NO 2 (Q52)

51. What was the total amount of income from interest, dividends, and annuities received in **1995** by all members of this household?

LAST YEAR

$|__|__|__|,|__|__|__|.00

52. During **1995**, approximately how much income from <u>all</u> sources did you and other household members have <u>before income taxes</u>? (Please give me your <u>best</u> estimate.)

LAST YEAR

TOTAL INCOME $|__|__|__|,|__|__|__|.00 (Q54)
NOT A HOUSEHOLD UNIT IN 1995 .....999996 (Q54)
REFUSED 999997 (Q53)
DON'T KNOW 999998 (Q53)

53. HAND CARD H6

Please tell me which letter on this card best represents your combined household income before taxes for **1995**.

LAST YEAR

LETTER: |___|

54. Now, consider cash, savings or checking accounts, stocks, bonds, mutual funds and certificates of deposit. Do the members of this household have more than $5,000 of such savings or cash assets at this time?

YES 1 (Q56)
NO 2

55. HAND CARD H7

What letter on this card best represents the <u>total savings or cash assets</u> of all household members at this time?

LETTER: |___|

I'm now going to ask you a few questions about income received last month.

LAST MONTH		56. HAND CARD H8 — Here is a card that lists a number of income sources I'm going to ask about. Please tell me whether any member of this household received income in (NAME OF LAST MONTH) from (SOURCE).	57. What was the total income received in (NAME OF LAST MONTH) by all members of your household – before taxes and other deductions – from (SOURCE)?
a.	Wages or salary from a job including tips or commissions?	YES ..... 1 ⟶ NO 2	$|__|__|__|,|__|__|__|.00
b.	Any Social Security or Supplemental Security income?	YES ..... 1 ⟶ NO 2	$|__|__|__|,|__|__|__|.00
c.	Income from pension or retirement?	YES ..... 1 ⟶ NO 2	$|__|__|__|,|__|__|__|.00
d.	Unemployment or Workmen's Compensation?	YES ..... 1 ⟶ NO 2	$|__|__|__|,|__|__|__|.00
e.	AFDC, general assistance or other public assistance program? (Do not include food stamps or WIC benefits)	YES ..... 1 ⟶ NO 2	$|__|__|__|,|__|__|__|.00
f.	Other sources, such as alimony, child support, and other regular monthly contributions from persons not living in this household?	YES ..... 1 ⟶ NO 2	$|__|__|__|,|__|__|__|.00

BOX D

CHECK Q56 AND Q57. IS THERE ANY RESPONSE OF DON'T KNOW OR REFUSED?

YES 1 (Q58)
NO 2 (Q59)

58. HAND CARD H9 — Would you please tell me whether the total income received by the members of this household during (NAME OF LAST MONTH) was more or less than the amount on this card next to the number (NUMBER OF MEMBERS IN THE HOUSEHOLD).

LAST MONTH

MORE 1
LESS 2

59. Did any member of your household receive food stamps in any of the last 12 months? [IF RESPONDENT IS UNCERTAIN, SAY: That is, from (NAME OF CURRENT MONTH) 1995 through (NAME OF LAST MONTH), 1996].

LAST 12 MONTHS

YES 1
NO 2
DON'T KNOW 8

60. Is anyone in your household authorized to receive food stamps at the present time? (An authorized person is one whose name appears on a certification card.)

YES 1
NO ..... 2 (END)

61. Is everyone in your household covered under this food stamp allotment?

YES 1 (Q64)
NO 2

62. Which persons are covered?

NAME: _____ NAME: _____

LINE LETTER: |__| LINE LETTER: |__|

NAME: _____ NAME: _____

LINE LETTER: |__| LINE LETTER: |__|

NAME: _____ NAME: _____

LINE LETTER: |__| LINE LETTER: |__|

63. HAND CARD H8

Think now just about these people, that is (READ NAMES IN Q62) and their income from the sources on this card. Approximately how much income from all sources did they have before taxes in (NAME OF LAST MONTH)? (Please give me your best estimate for just these people receiving food stamps.)

LAST MONTH $|__|__|__|,|__|__|__|.00

64. On about what date did your household last get food stamps?

|__|__| |__|__| 19 |__|__|
MONTH DAY YEAR

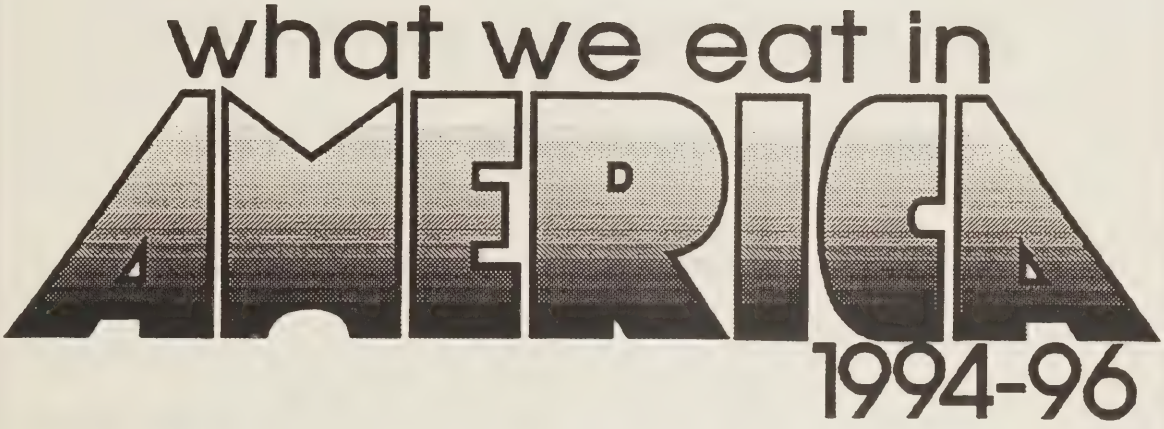
HAVE NOT RECEIVED THEM YET .....969696 (END)
DON'T KNOW 989898

65. What was the total amount of stamps you received at that time? (Please give your best estimate.)

$|__|__|__|,|__|__|__|.00

DON'T KNOW 999998

TIME ENDED _____ AM PM



WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

1996

OMB #: 0586-0014
Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

DAY ONE INTAKE QUESTIONNAIRE

PLACE CASE LABEL HERE

SAMPLE PERSON #: |__|__|

INTERVIEWER NAME: _____

INTERVIEWER ID: |__|__|__|

DATE OF INTERVIEW: |__|__|-|__|__|-19 |__|__|
MO DA YR

DAY OF INTERVIEW: _____

|__|__|:|__|__| AM 1
TIME STARTED PM 2

|__|__|:|__|__| AM 1
TIME ENDED PM 2

INTERVIEW CONDUCTED:

IN PERSON ..... (1)
BY TELEPHONE 2

FIRST NAME OF
SAMPLE PERSON: _____

DATE OF BIRTH: |__|__|-|__|__|-|__|__|__|__|
MO DA YEAR

OR
AGE: |__|__|__| YRS 1
MOS 2

SEX: M ..... 1 F 2

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ____ YES ____ NO

BATCH #: _____

Conducted for the United States Department of Agriculture
by Westat Inc., Rockville, MD

TIME STARTED _____ AM PM

DAY 1

1. HAND CARD I1

I'd like you to tell me everything (you/NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. Include everything (you/NAME) ate and drank at home and away -- even snacks, coffee, and alcoholic beverages. [DO NOT INTERRUPT RESPONDENT. USE HANDCARD I1 IF NECESSARY.]

[IF INFANT OR CHILD SP:] I'd like you to tell me everything (NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. Include everything (he/she) ate and drank at home and away, including snacks and drinks (and bottles or breast milk).

[WHEN RESPONDENT STOPS, ASK: Anything else?]

Now I'm going to ask you for more detail about the foods and beverages you just listed. I will be using this notebook to find the specific questions I need to ask. When you remember anything else (you/NAME) ate or drank as we go along, please tell me.

When I ask about amounts, you can use these measuring guides: the cups and spoons for volume of foods; the ruler for length, width, and height of foods; the sticks for thickness of meat, poultry, and cheese; and the circles on the card for the diameter of round foods. Please use any of your own cups, mugs, or bowls to estimate the amount of food (you/NAME) ate or drank at home yesterday, or check any package labels that may be helpful.

WHEN ASKING ABOUT FIRST FOOD RECORDED ON QUICK LIST, GO TO 2b.

2a. Did (you/NAME) have (NEXT QUICK LIST ITEM) at (TIME) with (your/his/her) (OCCASION) or was that at another time? [CONFIRM IF OBVIOUS OR IF RECORDED ON QUICK LIST.
IF SAME TIME AND OCCASION, SKIP TO BOX 1; IF AT ANOTHER TIME, ASK Q2b.]

2b. About what time did (you/NAME) begin to (eat/drink) the (FOOD)? [OR CONFIRM IF RECORDED ON QUICK LIST]

3. Looking at this card, please tell me what (you/NAME) would call this occasion? [OR CONFIRM IF RECORDED ON QUICK LIST]

HAND CARD I2

01 BREAKFAST
02 BRUNCH
03 LUNCH
04 DINNER
05 SUPPER
06 FOOD AND/OR BEVERAGE BREAK
SNACK
ALCOHOLIC BEVERAGE
OTHER BEVERAGE
07 FEEDING (INFANT ONLY)
08 OTHER (SPECIFY)

BOX 1

STEP 1: TRANSFER QUICK LIST FOOD TO THE FOOD/DRINK COLUMN. CHECK OFF FOOD IN QUICK LIST AS IT IS TRANSFERRED.

STEP 2 (Q4): GO TO FIB COLUMN Q4 FOR FOOD PROBES. BE SURE TO REQUEST FOOD LABELS IF RESPONDENT CANNOT ANSWER PROBES IN COLUMN Q4.

STEP 3 (Q5): GO TO FIB COLUMN Q5 HEADING FOR AMOUNT QUESTION.

STEP 4: RETURN TO **Q2a** FOR NEXT FOOD RECORDED IN QUICK LIST.

Q1 Quick List of Food Items	√	Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
A.		a p		1.	
B.					
C.		a p		2.	
D.		a p		3.	
E.					
F.		a p		4.	
G.		a p		5.	
H.					
I.		a p		6.	
J.		a p		7.	
K.					
L.		a p		8.	
M.		a p		9.	
N.					
O.		a p		10.	
P.		a p		11.	
Q.					
R.		a p		12.	
S.		a p		13.	
T.					
U.		a p		14.	
V.		a p		15.	
W.					
X.		a p		16.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2

Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		17.	
a p		18.	
a p		19.	
a p		20.	
a p		21.	
a p		22.	
a p		23.	
a p		24.	
a p		25.	
a p		26.	
a p		27.	
a p		28.	
a p		29.	
a p		30.	
a p		31.	
a p		32.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2

Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		33.	
a p		34.	
a p		35.	
a p		36.	
a p		37.	
a p		38.	
a p		39.	
a p		40.	
a p		41.	
a p		42.	
a p		43.	
a p		44.	
a p		45.	
a p		46.	
a p		47.	
a p		48.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2

6. Now let's see if I have everything. I'd like you to try to remember anything else (you/NAME) ate or drank yesterday, that you haven't already told me about, including anything (you/NAME) ate or drank while preparing a meal or while waiting to eat.

6a. Did (you/NAME) have anything to eat or drink between midnight yesterday and (your/NAME'S) (TIME) (FIRST OCCASION)?

6b. Now at (TIME) for (THIS OCCASION) (you/NAME) had (FOODS), did (you/NAME) have anything else?

6c. Did (you/NAME) have anything to eat or drink between (your/NAME's) (TIME) (THIS OCCASION) and (TIME) when (you/NAME) had (NEXT OCCASION)?

REPEAT 6b AND 6c FOR EACH OCCASION EXCEPT LAST OCCASION.
FOR LAST OCCASION, GO TO 6d.

6d. Now at (TIME) for (LAST OCCASION) (you/NAME) had (FOODS), did (you/NAME) have anything else?

6e. Did (you/NAME) have anything to eat or drink after (your/NAME's) (TIME) (LAST OCCASION) but before midnight last night?

Now let's go back to the beginning of the day and find out where (you/NAME), or other people who live here, obtained the food (you/NAME) ate and where (you/NAME) ate it.

7. (Looking at this card) Where did (you/NAME) obtain (THIS FOOD/MOST OF THE INGREDIENTS FOR THIS FOOD)?

HAND CARD I3

01 STORE, SUCH AS
SUPERMARKET, GROCERY STORE, OR WAREHOUSE, CONVENIENCE STORE, DRUG STORE, OR GAS STATION
SPECIALTY STORE SUCH AS BAKERY, DELI, SEAFOOD, ETHNIC FOOD, HEALTH FOOD
COMMISSARY
PRODUCE STAND OR FARMER'S MARKET
02 RESTAURANT WITH WAITER/WAITRESS SERVICE
03 FAST FOOD PLACE, PIZZA PLACE
04 BAR, TAVERN, LOUNGE
05 SCHOOL CAFETERIA
06 OTHER CAFETERIA
07 VENDING MACHINE
08 CHILD CARE CENTER, FAMILY DAY CARE HOME, ADULT DAY CARE
09 SOUP KITCHEN, SHELTER, FOOD PANTRY
10 MEALS ON WHEELS
11 OTHER COMMUNITY FOOD PROGRAM
12 GROWN OR CAUGHT BY YOU OR SOMEONE YOU KNOW

IF FISH OR SEAFOOD, ASK: Did it come from a...
71 Freshwater lake, pond, or river
72 The ocean, or
73 A bay, sound, or estuary?
74 DON'T KNOW BODY OF WATER

13 SOMEONE ELSE/GIFT

SOME OTHER PLACE (PLEASE DESCRIBE)
14 MAIL ORDER PURCHASE
15 COMMON COFFEE POT OR SNACK TRAY
16 RESIDENTIAL DINING FACILITY
17 OTHER (SPECIFY)
98 DON'T KNOW

8. Did (you/NAME) (eat/drink) this (FOOD) at your home?

IF YES, GO BACK TO Q7 FOR NEXT FOOD.
IF NO, GO TO Q9.

9. Before (you/NAME) (ate/drank) this particular (FOOD), was it ever at your home?

REPEAT Q7-9 FOR EACH FOOD.

10. Was the amount of food that (you/NAME) ate yesterday about usual, less than usual, or more than usual?

USUAL	1	(Q13)
LESS THAN USUAL	2	(Q11)
MORE THAN USUAL	3	(Q12)

11. What is the main reason the amount (you/NAME) ate yesterday was less than usual?

SICKNESS	01	
SHORT OF MONEY	02	
TRAVELING	03	
AT A SOCIAL OCCASION OR ON A SPECIAL DAY	04	
ON VACATION	05	
TOO BUSY	06	(Q13)
NOT HUNGRY	07	
DIETING	08	
FASTING	09	
BORED OR STRESSED	10	
SOME OTHER REASON (SPECIFY) _____	11	

|__|__|

12. What is the main reason the amount (you/NAME) ate yesterday was more than usual?

TRAVELING	1
AT A SOCIAL OCCASION OR ON A SPECIAL DAY	2
ON VACATION	3
VERY HUNGRY	4
BORED OR STRESSED	5
SOME OTHER REASON (SPECIFY) _____	6

|__|__|

13. HAND CARD I4

What type of salt, if any, (do you/does NAME) add to (your/his/her) food <u>at the table</u>? Would you say it is ordinary salt, seasoned salt, lite salt, or a salt substitute?

ORDINARY SALT/SEA SALT	1	
SEASONED SALT OR OTHER FLAVORED SALT	2	
LITE SALT	3	
SALT SUBSTITUTE	4	
NONE	5	(Q15)
DON'T KNOW	8	(Q15)

14. How often (do you/does NAME) add (ANSWER IN Q13) to (your/his/her) food <u>at the table</u>? Is it always, frequently, sometimes, or rarely?

ALWAYS	1
FREQUENTLY	2
SOMETIMES	3
RARELY	4

HAND CARD I5

Now I'd like you to think about all of the plain drinking water that (you/NAME) had yesterday, regardless of where (you/he/she) drank it. By plain drinking water, I mean tap water or any bottled water that is not carbonated, with nothing added to it, not even lemon.

15. How many fluid ounces of plain drinking water did (you/he/she) drink yesterday?

|__|__|__|
FLUID OUNCES

NONE 000 (Q18)

16. How much of this plain drinking water came from your home? Would you say all, most, some, or none?

ALL 1 (Q18)
MOST 2
SOME 3
NONE 4

17. What was the main source of plain drinking water that did not come from your home? Was it tap water, water from a drinking fountain, bottled water, or something else?

TAP WATER AND/OR DRINKING FOUNTAIN 1
BOTTLED WATER 2
OTHER SOURCE 3
(SPECIFY) _____ |__|__|
DON'T KNOW 8

18. (Are you/Is NAME) on any kind of diet either to lose weight or for some other health-related reason?

YES 1
NO 2 (Q22)

CIRCLE ALL THAT APPLY AND ASK Q20 AND Q21 IN SEQUENCE FOR EACH DIET CIRCLED.	WEIGHT LOSS OR LOW CALORIE DIET	LOW FAT OR CHOLESTEROL DIET	LOW SALT OR SODIUM DIET
19. HAND CARD I6 — Looking at this card, please tell me which of these diets (you are/NAME is) on.	01	02	03
20. (Are you/Is NAME) on this (ANSWER IN Q19) because . . .	YES NO	YES NO	YES NO
A doctor or dietitian suggested or prescribed it?	1 2	1 2	1 2
A medical condition runs in your family?	1 2	1 2	1 2
You joined another person on his/her diet?	1 2	1 2	1 2
You want to maintain or improve your health?	1 2	1 2	1 2
You want to lose weight?	1 2	1 2	1 2
Some other reason? (IF YES, SPECIFY)	1 2 (SPECIFY) |___|___|	1 2 (SPECIFY) |___|___|	1 2 (SPECIFY) |___|___|
21. HAND CARD I7 — Looking at this card, please tell me which of these <u>best</u> describes the source of (your/his/her) (ANSWER IN Q19). (CODE ONLY ONE)			
AN ORGANIZED WEIGHT LOSS PROGRAM	1	1	1
A DOCTOR OR DIETITIAN	2	2	2
SOMETHING YOU READ OR HEARD ABOUT	3	3	3
SOMETHING YOU MADE UP	4	4	4
SOMETHING ELSE (SPECIFY UNDER CODE 5)	5 (SPECIFY) |___|___|	5 (SPECIFY) |___|___|	5 (SPECIFY) |___|___|

SUGAR FREE OR LOW SUGAR DIET	LOW FIBER DIET	HIGH FIBER DIET	DIABETIC DIET	OTHER DIET _____ (SPECIFY)
04	05	06	07	08 |___|___|
YES NO	YES NO	YES NO	YES NO	YES NO
..... 1 2	..... 1 2	..... 1 2	..... 1 2	..... 1 2
..... 1 2	..... 1 2	..... 1 2	..... 1 2	..... 1 2
..... 1 2	..... 1 2	..... 1 2	..... 1 2	..... 1 2
..... 1 2	..... 1 2	..... 1 2	..... 1 2	..... 1 2
..... 1 2	..... 1 2	..... 1 2	..... 1 2	..... 1 2
..... 1 2	..... 1 2	..... 1 2	..... 1 2	..... 1 2
_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|
..... 1	 1	 1	 1	 1
..... 2	 2	 2	 2	 2
..... 3	 3	 3	 3	 3
..... 4	 4	 4	 4	 4
..... 5	 5	 5	 5	 5
_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|	_____ (SPECIFY) |___|___|

22. Do you consider (yourself/NAME) to be a vegetarian?

YES 1
NO 2

23. How often, if at all, (do you/does NAME) take any vitamin or mineral supplement in pill or liquid form? Would you say every day or almost every day, every so often, or not at all?

EVERY DAY OR ALMOST EVERY DAY 1
EVERY SO OFTEN 2
NOT AT ALL 3 (Q26)

24. HAND CARD I8

Looking at this card, which of these types of supplements (do you/does NAME) usually take... a multivitamin; multivitamin with iron or other minerals; combination of Vitamin C and iron; or single vitamins or minerals? (CIRCLE ALL THAT APPLY)

MULTIVITAMIN 1
MULTIVITAMIN WITH IRON OR OTHER MINERALS 2
COMBINATION OF VITAMIN C AND IRON 3
SINGLE VITAMINS/MINERALS 4

BOX 2

IS "4" CIRCLED IN Q24?

YES 1 (Q25)
NO 2 (Q26)

25. HAND CARD I9

Looking at this card, which of these single vitamins and minerals (do you/does he/she) usually take? (CIRCLE ALL THAT APPLY)

VITAMIN A 01
VITAMIN B/B COMPLEX 02
VITAMIN C 03
VITAMIN D 04
VITAMIN E 05
CALCIUM 06
FOLACIN 07
FLUORIDE 08
IRON 09
ZINC 10
SELENIUM 11
CHROMIUM 12
SOMETHING ELSE (SPECIFY) 13

_____

__	__
__	__
__	__
__	__

26. (Do you/Does NAME) take a fish oil supplement?

YES 1
NO 2

27. (Do you/Does he/she) take a fiber supplement?

YES 1
NO 2

28. (Have you/Has NAME) ever had (your/his/her) blood cholesterol checked?

YES 1
NO 2
DON'T KNOW 8

29. How tall (are you/is he/she) <u>without</u> shoes?

|__| |__|__|
FEET INCHES

30. About how much (do you/does NAME) weigh <u>without</u> shoes?

|__|__|__|
POUNDS

31. In general, would you say (your/his/her) health is excellent, very good, good, fair, or poor?

EXCELLENT 1
VERY GOOD 2
GOOD 3
FAIR 4
POOR 5

32. (Do you/Does NAME) have any food allergies that make it necessary to avoid certain foods?

YES 1
NO 2 (Q34)

33. What food allergies (do you/does NAME) have? (CIRCLE ALL THAT APPLY.)

WHEAT 01
COW'S MILK 02
EGGS 03
FISH OR SHELLFISH 04
CORN 05
PEANUTS ..... 06 |__|__|
OTHER NUTS ..... 07 |__|__|
SOY PRODUCTS ..... 08 |__|__|
OTHER (SPECIFY) ..... 09 |__|__|
_____

34. Has a doctor ever told (you/NAME) that (you have/he/she has): (CIRCLE A NUMBER FOR EACH)

	YES	NO
Diabetes?	1	2
High blood pressure (Hypertension)?	1	2
Heart disease?	1	2
Cancer?	1	2
Osteoporosis?	1	2
High blood cholesterol?	1	2
Stroke?	1	2

35. How many hours did (you/NAME) watch television or videotapes yesterday?

|__|__|
OF HOURS

BOX 3

SAMPLE PERSON IS . . .

LESS THAN 12 YEARS OF AGE ..... 1 (TIME ENDED)
12 YEARS OF AGE OR OLDER 2 (Q36)

36. How often do you exercise vigorously enough to work up a sweat?

DAILY	1
5-6 TIMES PER WEEK	2
2-4 TIMES PER WEEK	3
ONCE A WEEK	4
1-3 TIMES PER MONTH	5
RARELY OR NEVER	6

37. Have you smoked 100 or more cigarettes during your entire life?

YES	1	
NO	2	(Q40)

38. Do you smoke cigarettes now?

YES	1	
NO	2	(Q40)

39. On average, how many cigarettes per day do you smoke?

|__|__|__|
PER DAY

40. The last few questions are about alcoholic beverages, including beer, ale, wine, wine coolers, liquor such as whiskey, rum, gin, and vodka, and mixed drinks containing liquor.

During the past 12 months, that is, since last (NAME OF MONTH), have you consumed any alcoholic beverage?

YES	1	
NO	2	(TIME ENDED)

41. During the past 12 months, have you consumed any:

	YES	NO
Beer or ale?	1	2
Wine or wine coolers?	1	2
Liquor, such as whiskey, rum, gin, or vodka, or mixed drinks containing liquor?	1	2
Any other alcoholic beverages?	1	2

(SPECIFY) _____ |__|__|

_____

THANK RESPONDENT

CODER USE ONLY.
QLIST: |__|__|

TIME ENDED _____ AM PM

INTERVIEWER OBSERVATION FORM

[DO NOT READ THESE QUESTIONS TO THE RESPONDENT.]

A. WHO WAS THE MAIN RESPONDENT FOR THIS INTERVIEW?

SAMPLE PERSON	01
MOTHER OF SAMPLE PERSON	02
FATHER OF SAMPLE PERSON	03
WIFE OF SAMPLE PERSON	04
HUSBAND OF SAMPLE PERSON	05
DAUGHTER OF SAMPLE PERSON	06
SON OF SAMPLE PERSON	07
SISTER OF SAMPLE PERSON	08
BROTHER OF SAMPLE PERSON	09
GRANDPARENT OF SAMPLE PERSON	10
AUNT OF SAMPLE PERSON	11
UNCLE OF SAMPLE PERSON	12
SOMEONE ELSE (SPECIFY)	13

_____ |__|__|

B. WHO ELSE HELPED IN RESPONDING FOR THIS INTERVIEW? (CIRCLE ALL THAT APPLY)

NO ONE	00
SAMPLE PERSON	01
MOTHER OF SAMPLE PERSON	02
FATHER OF SAMPLE PERSON	03
WIFE OF SAMPLE PERSON	04
HUSBAND OF SAMPLE PERSON	05
DAUGHTER OF SAMPLE PERSON	06
SON OF SAMPLE PERSON	07
SISTER OF SAMPLE PERSON	08
BROTHER OF SAMPLE PERSON	09
GRANDPARENT OF SAMPLE PERSON	10
AUNT OF SAMPLE PERSON	11
UNCLE OF SAMPLE PERSON	12
SOMEONE ELSE (SPECIFY) - OTHER THAN INTERVIEWER	13

__	__
__	__
__	__

_____

C. DID YOU OR THE RESPONDENT HAVE DIFFICULTY WITH THIS INTAKE INTERVIEW?

YES	1	
NO	2	(BOX 4)

D. WHAT WAS THE REASON FOR THIS DIFFICULTY?

_____

_____

_____

_____

_____

BOX 4

SAMPLE PERSON IS . . .

LESS THAN 12 ..... 1 (QF)
12 OR OLDER ..... 2 (QE)

E. DO YOU THINK OTHER PEOPLE COULD HAVE HEARD THE ANSWERS TO Q37-41?

YES 1
NO 2

F. IS DATA RETRIEVAL NECESSARY FOR DAYCARE/BABY-SITTER/SCHOOL/OR OTHER CARETAKER?

YES 1
NO 2

[IF YES, RECORD SOURCE INFORMATION ON FOLLOW-UP CALL RECORD ON HOUSEHOLD FOLDER.]

what we eat in AMERICA 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

1996

OMB #: 0586-0014
Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

DAY TWO INTAKE QUESTIONNAIRE

PLACE CASE LABEL HERE

SAMPLE PERSON #: |__|__|

INTERVIEWER NAME: _____

INTERVIEWER ID: |__|__|__|

DATE OF INTERVIEW: |__|__|-|__|__|-19|__|__|
MO DA YR

DAY OF INTERVIEW: _____

|__|__|:|__|__| AM 1
TIME STARTED PM 2

|__|__|:|__|__| AM 1
TIME ENDED PM 2

INTERVIEW CONDUCTED:

IN PERSON 1
BY TELEPHONE 2

FIRST NAME OF
SAMPLE PERSON: _____

DATE OF BIRTH: |__|__|-|__|__|-|__|__|__|__|
MO DA YEAR

OR
AGE: |__|__|__| YRS 1
MOS 2

SEX: M ..... 1 F 2

FOR HOME OFFICE USE ONLY
DATE RECEIVED: _____
VERIFIER ID: _____
MC: ____ YES ____ NO
BATCH #: _____

Conducted for the United States Department of Agriculture
by Westat Inc., Rockville, MD

TIME STARTED _____ AM PM

DAY 2

1. HAND CARD I1

I'd like you to give me the list of everything (you/NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. I'll ask you for the detailed descriptions and amounts later. Please include everything (you/NAME) ate and drank at home and away -- even snacks, coffee, and alcoholic beverages. [DO NOT INTERRUPT RESPONDENT. USE HANDCARD I1 IF NECESSARY.]

[IF INFANT OR CHILD SP:] I'd like you to give me the list of everything (NAME) had to eat and drink all day yesterday, (DAY), from midnight to midnight. I'll ask you for the detailed descriptions and amounts later. Please include everything (he/she) ate and drank at home and away, including snacks and drinks (and bottles or breast milk).

[WHEN RESPONDENT STOPS, ASK: Anything else?]

Now I'm going to ask you the specific questions about the foods and beverages you just listed. When you remember anything else (you/NAME) ate or drank as we go along, please tell me.

Use these measuring guides to help estimate amounts or any of your own cups, mugs, bowls or package labels.

WHEN ASKING ABOUT FIRST FOOD RECORDED ON QUICK LIST, GO TO 2b.

2a. Did (you/NAME) have (NEXT QUICK LIST ITEM) at (TIME) with (your/his/her) (OCCASION) or was that at another time? [CONFIRM IF OBVIOUS OR IF RECORDED ON QUICK LIST.
IF SAME TIME AND OCCASION, SKIP TO BOX 1; IF AT ANOTHER TIME, ASK Q2b.]

2b. About what time did (you/NAME) begin to (eat/drink) the (FOOD)? [OR CONFIRM IF RECORDED ON QUICK LIST]

3. Looking at this card, please tell me what (you/NAME) would call this occasion? [OR CONFIRM IF RECORDED ON QUICK LIST]

HAND CARD I2

01 BREAKFAST
02 BRUNCH
03 LUNCH
04 DINNER
05 SUPPER
06 FOOD AND/OR BEVERAGE BREAK
SNACK
ALCOHOLIC BEVERAGE
OTHER BEVERAGE
07 FEEDING (INFANT ONLY)
08 OTHER (SPECIFY)

BOX 1

STEP 1: TRANSFER QUICK LIST FOOD TO THE FOOD/DRINK COLUMN. CHECK OFF FOOD IN QUICK LIST AS IT IS TRANSFERRED.

STEP 2 (Q4): GO TO FIB COLUMN Q4 FOR FOOD PROBES. BE SURE TO REQUEST FOOD LABELS IF RESPONDENT CANNOT ANSWER PROBES IN COLUMN Q4.

STEP 3 (Q5): GO TO FIB COLUMN Q5 HEADING FOR AMOUNT QUESTION.

STEP 4: RETURN TO **Q2a** FOR NEXT FOOD RECORDED IN QUICK LIST.

Q1 Quick List of Food Items	√	Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
A.		a p		1.	
B.					
C.		a p		2.	
D.		a p		3.	
E.					
F.		a p		4.	
G.		a p		5.	
H.					
I.		a p		6.	
J.		a p		7.	
K.					
L.		a p		8.	
M.		a p		9.	
N.					
O.		a p		10.	
P.		a p		11.	
Q.					
R.		a p		12.	
S.		a p		13.	
T.					
U.		a p		14.	
V.		a p		15.	
W.					
X.		a p		16.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2

Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		17.	
a p		18.	
a p		19.	
a p		20.	
a p		21.	
a p		22.	
a p		23.	
a p		24.	
a p		25.	
a p		26.	
a p		27.	
a p		28.	
a p		29.	
a p		30.	
a p		31.	
a p		32.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2
		YES..... 1 (Q7) NO 2	YES..... 1 NO 2

Q2 Time	Q3 Occ. (HAND-CARD I2)	Food/Drink and Additions	Q4 Description of Food/Drink and Ingredient Amount
a p		33.	
a p		34.	
a p		35.	
a p		36.	
a p		37.	
a p		38.	
a p		39.	
a p		40.	
a p		41.	
a p		42.	
a p		43.	
a p		44.	
a p		45.	
a p		46.	
a p		47.	
a p		48.	

Q5 How much of this (FOOD) did you actually (eat/drink)?	Q7 Where Obtained (HAND CARD I3)	Q8 Eaten At Home	Q9 Ever At Home
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2
		YES ..... 1 (Q7) NO 2	YES ..... 1 NO 2

6. Now let's see if I have everything. I'd like you to try to remember anything else (you/NAME) ate or drank yesterday, that you haven't already told me about, including anything (you/NAME) ate or drank while preparing a meal or while waiting to eat.

6a. Did (you/NAME) have anything to eat or drink between midnight yesterday and (your/NAME'S) (TIME) (FIRST OCCASION) ?

6b. Now at (TIME) for (THIS OCCASION) (you/NAME) had (FOODS), did (you/NAME) have anything else?

6c. Did (you/NAME) have anything to eat or drink between (your/NAME's) (TIME) (THIS OCCASION) and (TIME) when (you/NAME) had (NEXT OCCASION)?

REPEAT 6b AND 6c FOR EACH OCCASION EXCEPT LAST OCCASION.
FOR LAST OCCASION, GO TO 6d.

6d. Now at (TIME) for (LAST OCCASION) (you/NAME) had (FOODS), did (you/NAME) have anything else?

6e. Did (you/NAME) have anything to eat or drink after (your/NAME's) (TIME) (LAST OCCASION) but before midnight last night?

Now let's go back to the beginning of the day and find out where (you/NAME), or other people who live here, obtained the food (you/NAME) ate and where (you/NAME) ate it.

7. (Looking at this card) Where did (you/NAME) obtain (THIS FOOD/MOST OF THE INGREDIENTS FOR THIS FOOD)?

HAND CARD I3

01 STORE, SUCH AS
SUPERMARKET, GROCERY STORE, OR WAREHOUSE, CONVENIENCE STORE, DRUG STORE, OR GAS STATION
SPECIALTY STORE SUCH AS BAKERY, DELI, SEAFOOD, ETHNIC FOOD, HEALTH FOOD
COMMISSARY
PRODUCE STAND OR FARMER'S MARKET
02 RESTAURANT WITH WAITER/WAITRESS SERVICE
03 FAST FOOD PLACE, PIZZA PLACE
04 BAR, TAVERN, LOUNGE
05 SCHOOL CAFETERIA
06 OTHER CAFETERIA
07 VENDING MACHINE
08 CHILD CARE CENTER, FAMILY DAY CARE HOME, ADULT DAY CARE
09 SOUP KITCHEN, SHELTER, FOOD PANTRY
10 MEALS ON WHEELS
11 OTHER COMMUNITY FOOD PROGRAM
12 GROWN OR CAUGHT BY YOU OR SOMEONE YOU KNOW

IF FISH OR SEAFOOD, ASK: Did it come from a...
71 Freshwater lake, pond, or river
72 The ocean, or
73 A bay, sound, or estuary?
74 DON'T KNOW BODY OF WATER

13 SOMEONE ELSE/GIFT

SOME OTHER PLACE (PLEASE DESCRIBE)
14 MAIL ORDER PURCHASE
15 COMMON COFFEE POT OR SNACK TRAY
16 RESIDENTIAL DINING FACILITY
17 OTHER (SPECIFY)
98 DON'T KNOW

8. Did (you/NAME) (eat/drink) this (FOOD) at your home?

IF YES, GO BACK TO Q7 FOR NEXT FOOD.
IF NO, GO TO Q9.

9. Before (you/NAME) (ate/drank) this particular (FOOD), was it ever at your home?

REPEAT Q7-9 FOR EACH FOOD.

10. Was the amount of food that (you/NAME) ate yesterday about usual, less than usual, or more than usual?

USUAL	1	(Q13)
LESS THAN USUAL	2	(Q11)
MORE THAN USUAL	3	(Q12)

11. What is the main reason the amount (you/NAME) ate yesterday was less than usual?

SICKNESS	01	(Q13)
SHORT OF MONEY	02	
TRAVELING	03	
AT A SOCIAL OCCASION OR ON A SPECIAL DAY	04	
ON VACATION	05	
TOO BUSY	06	
NOT HUNGRY	07	
DIETING	08	
FASTING	09	
BORED OR STRESSED	10	
SOME OTHER REASON (SPECIFY) _____	11	

|__|__|

12. What is the main reason the amount (you/NAME) ate yesterday was more than usual?

TRAVELING	1
AT A SOCIAL OCCASION OR ON A SPECIAL DAY	2
ON VACATION	3
VERY HUNGRY	4
BORED OR STRESSED	5
SOME OTHER REASON (SPECIFY) _____	6

|__|__|

HAND CARD I5

Now I'd like you to think about all of the plain drinking water that (you/NAME) had yesterday, regardless of where (you/he/she) drank it. By plain drinking water, I mean tap water or any bottled water that is not carbonated, with nothing added to it, not even lemon.

13. How many fluid ounces of plain drinking water did (you/he/she) drink yesterday?

|__|__|__|
FLUID OUNCES

NONE 000 (Q16)

14. How much of this plain drinking water came from your home? Would you say all, most, some, or none?

ALL	1	(Q16)
MOST	2	
SOME	3	
NONE	4	

15. What was the main source of plain drinking water that did not come from your home? Was it tap water, water from a drinking fountain, bottled water, or something else?

TAP WATER AND/OR DRINKING FOUNTAIN	1	
BOTTLED WATER	2	
OTHER SOURCE	3	
(SPECIFY) _____		|__|__|
DON'T KNOW	8	

16. How many hours did (you/NAME) watch television or videotapes yesterday?

\|__\|__\|
OF HOURS

17. During the past 12 months, that is, since last (NAME OF MONTH), (have you/has NAME) eaten any (FOOD) in any form?

	YES	NO
Artichokes	1	2
Asparagus	1	2
Broccoli	1	2
Brussels sprouts	1	2
Cauliflower	1	2
Eggplant	1	2
Kale	1	2
Swiss chard	1	2
Okra	1	2
Spinach	1	2
Summer squash (thin skin)	1	2
Winter squash (hard skin)	1	2
Sweet potato or yams	1	2
Turnips, other than greens	1	2
Avocado or guacamole	1	2

	YES	NO
Grapefruit, other than juice	1	2
Cantaloupe	1	2
Honeydew melon	1	2
Watermelon	1	2
Nectarines	1	2
Pears	1	2
Plums	1	2
Rhubarb	1	2
Chicken liver	1	2
Beef, veal or pork liver	1	2
Lamb	1	2
Shellfish	1	2
Fish, other than shellfish or canned fish	1	2
IF YES: Was any of the fish you ate caught by you or someone you know?	1	2

THANK RESPONDENT

CODER USE ONLY.
QLIST: |__\|__\|

TIME ENDED _____ AM PM

INTERVIEWER OBSERVATION FORM

[DO NOT READ THESE QUESTIONS TO THE RESPONDENT.]

A. WHO WAS THE MAIN RESPONDENT FOR THIS INTERVIEW?

SAMPLE PERSON	01	
MOTHER OF SAMPLE PERSON	02	
FATHER OF SAMPLE PERSON	03	
WIFE OF SAMPLE PERSON	04	
HUSBAND OF SAMPLE PERSON	05	
DAUGHTER OF SAMPLE PERSON	06	
SON OF SAMPLE PERSON	07	
SISTER OF SAMPLE PERSON	08	
BROTHER OF SAMPLE PERSON	09	
GRANDPARENT OF SAMPLE PERSON	10	
AUNT OF SAMPLE PERSON	11	
UNCLE OF SAMPLE PERSON	12	
SOMEONE ELSE (SPECIFY)	13	|___|___|

_____

B. WHO ELSE HELPED IN RESPONDING FOR THIS INTERVIEW? (CIRCLE ALL THAT APPLY)

NO ONE	00	
SAMPLE PERSON	01	
MOTHER OF SAMPLE PERSON	02	
FATHER OF SAMPLE PERSON	03	
WIFE OF SAMPLE PERSON	04	
HUSBAND OF SAMPLE PERSON	05	
DAUGHTER OF SAMPLE PERSON	06	
SON OF SAMPLE PERSON	07	
SISTER OF SAMPLE PERSON	08	
BROTHER OF SAMPLE PERSON	09	
GRANDPARENT OF SAMPLE PERSON	10	
AUNT OF SAMPLE PERSON	11	|___|___|
UNCLE OF SAMPLE PERSON	12	|___|___|
SOMEONE ELSE (SPECIFY) - OTHER THAN INTERVIEWER	13	|___|___|

_____

C. DID YOU OR THE RESPONDENT HAVE DIFFICULTY WITH THIS INTAKE INTERVIEW?

YES	1	
NO	2	(QF)

D. WHAT WAS THE REASON FOR THIS DIFFICULTY?

_____

_____

_____

_____

_____

BOX 4 AND QUESTION E NOT ASKED FOR DAY 2.

F. IS DATA RETRIEVAL NECESSARY FOR DAYCARE/BABY-SITTER/SCHOOL/OR OTHER CARETAKER?

YES 1
NO 2

[IF YES, RECORD SOURCE INFORMATION ON FOLLOW-UP CALL RECORD ON HOUSEHOLD FOLDER.]

what we eat in AMERICA 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

1996

OMB #: 0586-0014
Expires: October 31, 1996

WHAT WE EAT IN AMERICA: 1994-1996

DIET AND HEALTH KNOWLEDGE SURVEY QUESTIONNAIRE

PLACE CASE LABEL HERE

[BE SURE TO PREPARE QUESTIONNAIRE BY MARKING RANDOM STARTS BEFORE CONTACTING RESPONDENT.]

RANDOM START LABEL

INTRODUCTION: (ASK TO SPEAK WITH SAMPLE PERSON.)
Hello, I am (YOUR NAME) from Westat. (I/We) spoke with you recently as part of the food survey Westat is conducting for the United States Department of Agriculture. Before I begin, I just need to verify your name and age to make sure that I am interviewing the correct person. Is this (NAME OF SAMPLE PERSON)? And you are (AGE) years old? (IF NOT CORRECT SAMPLE PERSON, THANK RESPONDENT AND ATTEMPT TO SPEAK WITH CORRECT SAMPLE PERSON.)

SAMPLE PERSON #: |__|__|

INTERVIEWER NAME: _____

INTERVIEWER ID: |__|__|__|

DATE OF INTERVIEW: |__|__| - |__|__| - 19 |__|__|
MO DAY YR

DAY OF INTERVIEW: _____

SP'S FIRST NAME: _____

DATE OF BIRTH: |__|__| - |__|__| - |__|__|__|__|
MO DAY YEAR

OR

AGE: |__|__|__| YRS ..... (1)
MOS 2

SEX: M ..... 1 F 2

|__|__| : |__|__| TIME STARTED
AM..... 1
PM..... 2

|__|__| : |__|__| TIME ENDED
AM..... 1
PM..... 2

CONDUCTED:
IN PERSON 1
BY TELEPHONE 2

FOR HOME OFFICE USE ONLY

DATE RECEIVED: _____

VERIFIER ID: _____

MC: ___ YES ___ NO

BATCH #: _____

Conducted for the United States Department of Agriculture by Westat Inc., Rockville, MD

TIME STARTED _____ AM PM

SUGGESTED INTRODUCTION: [YOU MAY PARAPHRASE THE INTRODUCTION AS LONG AS THE SAME CONTENTS ARE PRESENTED.]

When I talked to you before, I said I would get back in touch with you to ask a few more questions about your opinions on your diet, health, food shopping, and related topics.

Before I begin, I would appreciate it if you could get the post card I mailed you which reminded you of the interview. It lists the answer choices and will help the interview go more quickly.

(IF RESPONDENT DOES NOT REMEMBER RECEIVING CARD OR HAS MISPLACED IT, REASSURE RESPONDENT THAT THE INTERVIEW CAN STILL TAKE PLACE AND YOU WILL SIMPLY REPEAT THE ANSWER CATEGORIES MORE FREQUENTLY. IF RESPONDENT DOES HAVE THE CARD, REFER HIM/HER TO THE APPROPRIATE CATEGORY.)

1. Let's begin by talking about the number of servings from different food groups that a person should eat each day. How many servings from the (FOOD GROUP) would you say a person of your age and sex should eat each day for good health? (DO NOT ACCEPT A RANGE OF SERVINGS.)

   What about the (NEXT FOOD GROUP)?

IF ASKED, SAY: "Count as a serving whatever you consider a serving to be."

START AT "X"

	FOOD GROUP	NUMBER OF SERVINGS	DON'T KNOW
	a. Fruit Group?	|__|__|	98
	b. Vegetable Group?	|__|__|	98
	c. Milk, Yogurt, and Cheese Group?	|__|__|	98
	d. Bread, Cereal, Rice, and Pasta Group?	|__|__|	98
	e. Meat, Poultry, Fish, Dry Beans, and Eggs Group?	|__|__|	98

2. Now I am going to read some statements about what people eat. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement: (READ STATEMENT).

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement?"

		CATEGORY A			
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
START AT "X"	a. Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	4	3	2	1
	b. Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	4	3	2	1
	c. Some people are born to be fat and some thin; there is not much you can do to change this.	4	3	2	1
	d. Starchy foods, like bread, potatoes, and rice, make people fat.	4	3	2	1
	e. There are so many recommendations about healthy ways to eat, it's hard to know what to believe.	4	3	2	1
	f. What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	4	3	2	1
	g. The things I eat and drink now are healthy so there is no reason for me to make changes.	4	3	2	1
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree

3. Next, let's talk about <u>your own</u> diet. Compared to what is healthy, do you think your diet is too low, too high, or about right in (STATEMENT)?

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Would you say your diet is too low, too high, or about right in that?"

IF NEEDED, SAY: "The question is asking about nutrients from foods, not from vitamin pills."

START AT "X"

	CATEGORY B			
STATEMENT	Too Low	Too High	About Right	DON'T KNOW
a. Calories?	1	2	3	8
b. Calcium?	1	2	3	8
c. Iron?	1	2	3	8
d. Vitamin C?	1	2	3	8
e. Protein?	1	2	3	8
f. Fat?	1	2	3	8
g. Saturated fat?	1	2	3	8
h. Cholesterol?	1	2	3	8
i. Salt or sodium?	1	2	3	8
j. Fiber?	1	2	3	8
k. Sugar and sweets?	1	2	3	8
STATEMENT	Too Low	Too High	About Right	DON'T KNOW

4. To you personally, is it very important, somewhat important, not too important, or not at all important to (STATEMENT)?

To you personally, how important is it to (NEXT STATEMENT)?

IF NEEDED, SAY: "Is that very important, somewhat important, not too important, or not at all important to you personally?"

IF NEEDED, SAY: "The question is not asking about your actual eating habits, it is asking about the importance of the statement to you personally."

START AT "X"

	STATEMENT	CATEGORY C: Very Important	Somewhat Important	Not Too Important	Not At All Important	DON'T KNOW
	a. Use salt or sodium only in moderation?	4	3	2	1	8
	b. Choose a diet low in saturated fat?	4	3	2	1	8
	c. Choose a diet with plenty of fruits and vegetables?	4	3	2	1	8
	d. Use sugars only in moderation?	4	3	2	1	8
	e. Choose a diet with adequate fiber?	4	3	2	1	8
	f. Eat a variety of foods?	4	3	2	1	8
	g. Maintain a healthy weight?	4	3	2	1	8
	h. Choose a diet low in fat?	4	3	2	1	8
	i. Choose a diet low in cholesterol?	4	3	2	1	8
	j. Choose a diet with plenty of breads, cereals, rice, and pasta?	4	3	2	1	8
	k. Eat at least two servings of dairy products daily?	4	3	2	1	8
	STATEMENT	Very Important	Somewhat Important	Not Too Important	Not At All Important	DON'T KNOW

5. Have you heard about any health problems caused by (BEHAVIOR)? (ASK QUESTIONS 5A - 5G AND 6 UNTIL COMPLETE, THEN GO TO QUESTION 7.)	6. What health problems are these? Any other problems? (DO NOT READ PROBLEMS) (CIRCLE CODE IN THE APPROPRIATE ROW BELOW) 01 – Arteriosclerosis/Atherosclerosis 02 – Arthritis 03 – Bone problems/Rickets 04 – Breathing problems 05 – Cancer (All types) 07 – Cavities/Caries 01 – Clogged arteries 06 – Colitis/Colon problems 06 – Constipation 01 – Coronary disease 08 – Diabetes 06 – Digestive problems 06 – Diverticulosis 09 – Edema 10 – Fatigue 15 – Fat/Overweight 01 – Hardening of the arteries 01 – Heart problems/Heart attack 11 – High blood cholesterol 12 – High blood pressure 08 – High blood sugar 13 – Hyperactivity 12 – Hypertension 06 – Irregularity 14 – Kidney disease 10 – Lack of energy 15 – Obesity/Overweight 03 – Osteoporosis 14 – Renal disease 16 – Stroke 10 – Tiredness 07 – Tooth problems 09 – Water (fluid) retention 17 – HEALTH PROBLEMS NOT SPECIFIED 00 – Other disease/problem (SPECIFY)

START AT "X"

	BEHAVIOR																		
	a. Eating too much fat? YES ..... 1 (Q6) NO 2 (Q5b)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)
	b. Not eating enough fiber? YES ..... 1 (Q6) NO 2 (Q5c)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)
	c. Eating too much salt or sodium? YES ..... 1 (Q6) NO 2 (Q5d)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)
	d. Not eating enough calcium? YES ..... 1 (Q6) NO 2 (Q5e)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)
	e. Eating too much cholesterol? YES ..... 1 (Q6) NO 2 (Q5f)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)
	f. Eating too much sugar? YES ..... 1 (Q6) NO 2 (Q5g)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)
	g. Being overweight? YES ..... 1 (Q6) NO 2 (Q5a)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	00 (SPECIFY)

7. Do you consider yourself to be . . .

overweight, ... 1
underweight, or 2
about right? 3

8. Based on your knowledge, which has <u>more saturated</u> fat: (READ EACH PAIR STARTING AT "X" AND THEN WAIT FOR AN ANSWER. DO NOT PROBE "DON'T KNOW" ANSWERS.)

	PAIRS	
START AT "X"	a. Liver, or	1
	T-bone steak?	2
	THE SAME	3
	DON'T KNOW	8
	b. Butter, or	1
	Margarine?	2
	THE SAME	3
	DON'T KNOW	8
	c. Egg white, or	1
	Egg yolk?	2
	THE SAME	3
	DON'T KNOW	8
	d. Skim milk, or	1
	Whole milk?	2
	THE SAME	3
	DON'T KNOW	8

9. Which has more fat: (READ EACH PAIR STARTING AT "X" AND THEN WAIT FOR AN ANSWER. DO NOT PROBE "DON'T KNOW" ANSWERS.)

START AT "X"	PAIRS	
	a. Regular hamburger, or	1
	Ground round?	2
	THE SAME	3
	DON'T KNOW	8
	b. Loin pork chops, or	1
	Pork spare ribs?	2
	THE SAME	3
	DON'T KNOW	8
	c. Hot dogs, or	1
	Ham?	2
	THE SAME	3
	DON'T KNOW	8
	d. Peanuts, or	1
	Popcorn?	2
	THE SAME	3
	DON'T KNOW	8
	e. Yogurt, or	1
	Sour cream?	2
	THE SAME	3
	DON'T KNOW	8
	f. Porterhouse steak, or	1
	Round steak?	2
	THE SAME	3
	DON'T KNOW	8

DO NOT PROBE "DON'T KNOW" ANSWERS FOR Q10-14.

10. Which kind of fat is more likely to be a liquid rather than a solid . . .

saturated fats,	1
polyunsaturated fats, or	2
are they equally likely to be liquids?	3
DON'T KNOW	8

11. If a food has no cholesterol is it also . . .

low in saturated fat,	1
high in saturated fat, or	2
could it be either high or low in saturated fat?	3
DON'T KNOW	8

12. Is cholesterol found in . . .

vegetables and vegetable oils,	1
animal products like meat and dairy products, or	2
all foods containing fat or oil?	3
DON'T KNOW	8

13. If a product is labeled as containing only vegetable oil is it . . .

low in saturated fat,	1
high in saturated fat, or	2
could it be either high or low in saturated fat?	3
DON'T KNOW	8

14. If a food product is labeled "light," does that mean that compared to a similar product not labeled "light" it is lower in calories, lower in fat, or lower in calories and/or fat, or does it mean something else?

LOWER IN CALORIES	1
LOWER IN FAT	2
LOWER IN CALORIES AND/OR FAT	3
SOMETHING ELSE	4
DON'T KNOW	8

15. Now think about buying food. When you buy food, how important is (FACTOR) – very important, somewhat important, not too important, or not at all important?

What about (NEXT FACTOR)?

IF NEEDED, SAY: "How important is (FACTOR) – very important, somewhat important, not too important, or not at all important when you buy food?"

START AT "X"

	FACTOR	CATEGORY C: Very Important	Somewhat Important	Not Too Important	Not At All Important	DON'T KNOW
	a. How safe the food is to eat?	4	3	2	1	8
	b. Nutrition?	4	3	2	1	8
	c. Price?	4	3	2	1	8
	d. How well the food keeps?	4	3	2	1	8
	e. How easy the food is to prepare?	4	3	2	1	8
	f. Taste?	4	3	2	1	8

16. Now think about food labels. When you buy foods, do you use (SECTION) often, sometimes, rarely, or never?

What about (NEXT SECTION)?

IF NEEDED, SAY: "Do you use (SECTION) often, sometimes, rarely, or never?"

		CATEGORY D					
	SECTION	Often (Always)	Some-times	Rarely	Never	NEVER SEEN	DON'T KNOW
START AT "X"	a. The list of ingredients?	1	2	3	4	5	8
	b. The short phrases on the label like "low-fat" or "light" or "good source of fiber"?	1	2	3	4	5	8
	c. The nutrition panel that tells the amount of calories, protein, fat, and such in a serving of the food?	1	2	3	4	5	8
	d. The information about the size of a serving?	1	2	3	4	5	8
	e. Statements on the label that describe health benefits of nutrients or foods?	1	2	3	4	5	8

BOX 1

IN Q16 ABOVE, IS CODE 4, 5, OR 8 CIRCLED FOR EVERY ITEM (a-e)?

YES ..... 1 **(Q24, PAGE 16)**
NO 2 (Q17)

17. When you look for nutrition information on the food label, would you say you often, sometimes, rarely, or never look for information about (STATEMENT)?

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Would you say you often, sometimes, rarely, or never look for information about that?"

START AT "X"

STATEMENT	CATEGORY D: Often (Always)	Sometimes	Rarely	Never
a. Calories?	1	2	3	4
b. Salt or sodium?	1	2	3	4
c. Total fat?	1	2	3	4
d. Saturated fat?	1	2	3	4
e. Cholesterol?	1	2	3	4
f. Vitamins or minerals?	1	2	3	4
g. Fiber?	1	2	3	4
h. Sugars?	1	2	3	4

18. Now think about the types of food products you buy using food labels. When you buy (FOOD PRODUCT), do you look for nutrition information on the food label often, sometimes, rarely, or never?

What about (NEXT FOOD PRODUCT)?

IF NEEDED, SAY: "And when you buy (FOOD PRODUCT), do you look for nutrition information on the food label often, sometimes, rarely, or never?"

START AT "X"

FOOD PRODUCT	CATEGORY D: Often (Always)	Sometimes	Rarely	Never	NEVER SEEN	DO NOT BUY
a. Dessert items like cookies or cake mixes?	1	2	3	4	5	6
b. Snack items like chips, popcorn, or pretzels?	1	2	3	4	5	6
c. Frozen dinners or main dishes?	1	2	3	4	5	6
d. Breakfast cereals?	1	2	3	4	5	6
e. Cheese?	1	2	3	4	5	6
f. Fresh fruits or vegetables?	1	2	3	4	5	6
g. Salad dressings?	1	2	3	4	5	6
h. Table spreads like butter or margarine?	1	2	3	4	5	6
i. Raw meat, poultry, or fish?	1	2	3	4	5	6
j. Processed meat products like hot dogs and bologna?	1	2	3	4	5	6
FOOD PRODUCT	Often (Always)	Sometimes	Rarely	Never	NEVER SEEN	DO NOT BUY

19. Now think about the types of nutrition information on food labels. Do you think (SECTION) is very easy to understand, somewhat easy, or not too easy to understand?

What about (NEXT SECTION)?

IF NEEDED, SAY: "Would you say that is very easy to understand, somewhat easy, or not too easy to understand?"

START AT "X"

SECTION	CATEGORY E: Very Easy	Somewhat Easy	Not Too Easy	NEVER SEEN	DON'T KNOW
a. The list of ingredients?	1	2	3	4	8
b. A short phrase like "low-fat" or "light" or "good source of fiber"?	1	2	3	4	8
c. The number of calories in a serving?	1	2	3	4	8
d. The number of calories from fat in a serving?	1	2	3	4	8
e. The number of grams or milligrams of nutrients like fat and sodium in a serving?	1	2	3	4	8
f. The percent of the daily value for each nutrient?	1	2	3	4	8
g. A description like "lean" or "extra lean" on meats?	1	2	3	4	8
SECTION	Very Easy	Somewhat Easy	Not Too Easy	NEVER SEEN	DON'T KNOW

20. If a food label says a food is (DESCRIPTION), would you say you are very confident, somewhat confident, or not too confident that the description is a reliable basis for choosing foods?

What about (NEXT DESCRIPTION)?

IF NEEDED, SAY: "How confident are you that the description is reliable? Would you say very confident, somewhat confident, or not too confident?"

START AT "X"

DESCRIPTION	CATEGORY F: Very Confident	Somewhat Confident	Not Too Confident	DON'T KNOW
a. Low-fat?	1	2	3	8
b. Low-cholesterol?	1	2	3	8
c. A good source of fiber?	1	2	3	8
d. Light?	1	2	3	8
e. Healthy?	1	2	3	8
f. Extra lean?	1	2	3	8

21. As far as you know, does the government define and enforce the meaning of the phrase (PHRASE) on food labels? (DO NOT PROBE "DON'T KNOW" ANSWERS.)

What about the phrase (NEXT PHRASE)?

START AT "X"

	PHRASE	YES	NO	DON'T KNOW
	a. Low-cholesterol?	1	2	8
	b. Light?	1	2	8
	c. Extra lean?	1	2	8

22. Now think about the section of the food label that tells the amount of calories, protein, and fat in a serving of the food. If it showed that one serving of the food contained (AMOUNT OF NUTRIENT), would you consider that to be a low amount or a high amount? (DO NOT PROBE "DON'T KNOW" ANSWERS.)

What about (NEXT AMOUNT OF NUTRIENT)?

IF NEEDED, SAY: "Would you consider that to be a low amount or a high amount for one serving of food?"

START AT "X"

	AMOUNT OF NUTRIENT	Low	High	DON'T KNOW
	a. 100 milligrams of sodium?	1	2	8
	b. 20 grams of fat?	1	2	8
	c. 15 milligrams of cholesterol?	1	2	8
	d. 5 grams of fiber?	1	2	8
	e. 10 grams of saturated fat?	1	2	8

23. Now I am going to read some statements. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement: (READ STATEMENT)

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement?"

		CATEGORY A				
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION
START AT "X"	a. The nutrition information on food labels is useful to me.	4	3	2	1	0
	b. I feel confident that I know how to use food labels to choose a healthy diet.	4	3	2	1	0
	c. The nutrition information on food labels is hard to interpret.	4	3	2	1	0
	d. Reading food labels takes more time than I can spare.	4	3	2	1	0
	e. I read food labels because good health is important to me.	4	3	2	1	0
	f. I would like to learn more about how to use food labels to choose a nutritious diet.	4	3	2	1	0
	g. Reading food labels makes it easier to choose foods.	4	3	2	1	0
	h. Sometimes I try new foods because of the information on the food label.	4	3	2	1	0
	i. When I use food labels, I make better food choices.	4	3	2	1	0
	j. Using food labels to choose foods is better than just relying on my own knowledge about what is in them.	4	3	2	1	0
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION

GO TO Q26, PAGE 17

24. Now I am going to read some statements about food labels. Please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement: (READ STATEMENT)

What about (NEXT STATEMENT)?

IF NEEDED, SAY: "Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement?"

		CATEGORY A				
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION
START AT "X"	a. I feel confident that I know how to use food labels to choose a healthy diet.	4	3	2	1	0
	b. The nutrition information on food labels is hard to interpret.	4	3	2	1	0
	c. Reading food labels takes more time than I can spare.	4	3	2	1	0
	d. I would like to learn more about how to use food labels to choose a nutritious diet.	4	3	2	1	0
	e. Using food labels to choose foods would be better than just relying on my own knowledge about what is in them.	4	3	2	1	0
	STATEMENT	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	NO OPINION

25. As far as you know, does the government define and enforce the meaning of the phrase (PHRASE) on food labels? (DO NOT PROBE "DON'T KNOW" ANSWERS.)

What about the phrase (NEXT PHRASE)?

	PHRASE	YES	NO	DON'T KNOW
START AT "X"	a. Low-cholesterol?	1	2	8
	b. Light?	1	2	8
	c. Extra lean?	1	2	8

26. Now think about the foods you eat. Would you say you always, sometimes, rarely, or never (HABIT)?

What about (NEXT HABIT)?

IF NEEDED, SAY: "Do you always, sometimes, rarely, or never (HABIT)?"

	CATEGORY G				
HABIT	Always (Almost Always)	Some-times	Rarely	Never	DOES NOT EAT THIS FOOD
a. Eat lower-fat luncheon meats instead of regular luncheon meats? (IF NEEDED, SAY: "Examples of lower-fat luncheon meats are deli ham and turkey. Examples of regular luncheon meats are bologna and salami.")	1	2	3	4	0
b. Use skim or 1% milk instead of 2% or whole milk?	1	2	3	4	0
c. Eat special, low-fat cheeses, when you eat cheese?	1	2	3	4	0
d. Eat ice milk, frozen yogurt, or sherbet instead of ice cream?	1	2	3	4	0
e. Use low-calorie instead of regular salad dressing?	1	2	3	4	0
f. Have fruit for dessert when you eat dessert?	1	2	3	4	0
g. Eat fish or poultry instead of meat? (IF NEEDED, SAY: "Meat refers to beef, pork, or lamb."	1	2	3	4	0
HABIT	Always (Almost Always)	Some-times	Rarely	Never	DOES NOT EAT THIS FOOD

FOR QUESTIONS 27-31 USE CATEGORY G

27. When you eat baked or boiled potatoes, how often do you add butter, margarine, or sour cream? Would you say always, sometimes, rarely, or never?

ALWAYS (ALMOST ALWAYS)	1
SOMETIMES	2
RARELY	3
NEVER	4
DO NOT EAT BAKED OR BOILED POTATOES	0

28. When you eat other cooked vegetables, do you always, sometimes, rarely, or never eat them with butter or margarine added?

ALWAYS (ALMOST ALWAYS)	1	
SOMETIMES	2	
RARELY	3	
NEVER	4	
DO NOT EAT COOKED VEGETABLES	0	(Q30)

29. When you eat other cooked vegetables, do you always, sometimes, rarely, or never eat them with cheese or another creamy sauce added?

ALWAYS (ALMOST ALWAYS)	1
SOMETIMES	2
RARELY	3
NEVER	4

30. When you eat chicken, do you always, sometimes, rarely, or never eat it fried?

ALWAYS (ALMOST ALWAYS)	1	
SOMETIMES	2	
RARELY	3	
NEVER	4	
DO NOT EAT CHICKEN	0	(Q32)

31. When you eat chicken, do you always, sometimes, rarely, or never remove the skin?

ALWAYS (ALMOST ALWAYS)	1
SOMETIMES	2
RARELY	3
NEVER	4

32. Would you describe the amount of butter or margarine you usually spread on breads and muffins as . . .

none,	1
light,	2
moderate, or	3
generous?	4

33. About how many times in a week do you eat (FOOD) – less than once a week, 1-3, 4-6, or 7 or more times?

IF ASKED, SAY: "A 'time' is any single eating occasion."

FOOD	Less than once a week (Never)	1-3	4-6	7 or More
a. Bakery products like cakes, cookies, or donuts?	1	2	3	4
b. Chips, such as potato or corn chips?	1	2	3	4

34. And at your main meal, about how many times in a week do you eat beef, pork, or lamb. Would you say less than once a week, 1-2, 3-4, or 5-7 times?

LESS THAN ONCE A WEEK/NEVER 1
1-2 TIMES 2
3-4 TIMES 3
5-7 TIMES 4
DO NOT EAT MEAT 0 (Q37)

35. When you eat meat, do you usually eat . . .

IF ASKED, SAY: "The question is asking about meats, like beef, pork, or lamb."

small, ... 1
medium, or 2
large portions? 3
DO NOT EAT MEAT 0 (Q37)

36. When you eat meat and there is visible fat, do you trim the fat always, sometimes, rarely, or never?

CATEGORY G

ALWAYS (ALMOST ALWAYS) 1
SOMETIMES 2
RARELY 3
NEVER 4
NEVER EAT MEAT WITH VISIBLE FAT 0

37. How many eggs do you usually eat in a week – less than one, 1-2, 3-4, or 5 or more?

IF ASKED, SAY: "The question is asking about plain eggs, not egg substitutes or eggs in mixed dishes or baked goods."

LESS THAN ONE/NONE 1
1-2 2
3-4 3
5 OR MORE 4

38. Before you eat fresh fruits and vegetables, do you or does someone else wash them always, sometimes, rarely, or never?

CATEGORY G

ALWAYS (ALMOST ALWAYS)	1	
SOMETIMES	2	
RARELY	3	
NEVER	4	
DON'T KNOW	8	
DO NOT EAT FRESH FRUITS/ VEGETABLES	0	(Q42)

39. When you eat fresh fruits with peels that can be eaten, do you eat the peel always, sometimes, rarely, or never?

CATEGORY G

ALWAYS (ALMOST ALWAYS)	1
SOMETIMES	2
RARELY	3
NEVER	4
DON'T KNOW	8

40. When you eat fresh vegetables with peels that can be eaten, do you eat the peel always, sometimes, rarely, or never?

CATEGORY G

ALWAYS (ALMOST ALWAYS)	1
SOMETIMES	2
RARELY	3
NEVER	4
DON'T KNOW	8

41. Do you eat the outer leaves of leafy vegetables like lettuce and cabbage? Would you say yes or no?

IF NEEDED, SAY: "What do you do <u>most</u> of the time?"

YES	1
NO	2
DON'T KNOW	8
DO NOT EAT LEAFY VEGETABLES	0

42. Are you the person <u>most</u> responsible for planning or preparing the meals in your household?

YES	1
NO	2
DON'T KNOW	8

THANK YOU FOR YOUR TIME AND COOPERATION

TIME ENDED _____ AM PM

what we eat in AMERICA 1994-96

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

Conducted for:

United States Department of Agriculture

Conducted by:

Westat
1650 Research Blvd.
Rockville, MD 20850

3.B Summary of Revisions to the Food Instruction Booklet

FIB CHANGES FOR 1996

General Instructions, Bracketing (page ix)

The bracketing section was expanded to provide more explanation and examples of correct bracketing.

Breast Milk (page 2)

An interviewer instruction was added in parentheses to remind you that "expressed" breast milk is the same as "pumped" breast milk.

Orange Juice (100%) (page 8) -

The probe after the **If no** hanger under **If frozen concentrate** was modified so that you no longer ask the size of the can, but rather ask only the number of cans of water per can of juice.

Juices (100%), Nectars (page 9)

The change made to the Orange Juice subcategory was also made to this category.

Fruit-flavored Drinks, Ades, Punches, Juice Drinks (Noncarbonated) (page 10)

This subcategory was changed to more easily collect the label information. The **TYPE** hanger was dropped, and most of the probes were added to the **FORM** hanger.

The **FORM** hanger was divided into three subhangers **(If powdered, If frozen concentrate, and If ready-to-drink)** with probes specific to each form attached. The Vitamin C probe now has it's own hanger.

An interviewer instruction was added after the **ADDITIONS** probe to remind you that you should not consider the water used to reconstitute frozen concentrate as an addition.

Cheese (page 23)

The example under the hanger **IF NOT PRESLICED OR IF CHEESE STICK** in column Q5, was rearranged and reworded for better reference.

Eggs, Egg Substitutes (page 24)

The example "deviled" was added to the list under the hanger **PREPARATION**.

The probes attached to the hanger **IF SCRAMBLED OR OMELET** were slightly reworded from "Did the eggs have milk?" to "Were the eggs prepared with milk?" and from "Did the eggs have cheese, vegetables, meat...?" to "Were the eggs prepared with cheese, vegetables, meat...?"

Yogurt (page 24)

The hanger FORM was added to the beginning of the category to allow you to quickly identify frozen yogurt.

Ice Cream, Ice Milk, Sherbet, Tofu Desserts, Frozen Dairy Desserts, Frozen Yogurt, Sundaes (page 28)

The word "Sundaes" was added to the list of foods in the Food/Drink Category column.

The subhanger **If ice-cream** was added under the hanger **KIND**. The forms "scoop" and "sandwich" were added to the list under the hanger **FORM**.

The symbol "...?" was added to the end of the same list to indicate you should say "or something else?"

White Potatoes (page 32)

The word "roasted" was added to the list under the hanger **KIND**. A new subhanger, **If roasted** was added.

In column Q5 the subhanger **If baby red potato or a new potato** was added to collect quantity information specific to those types of potatoes.

French Fries, Tater Tots (page 34)

The term "some other place" was added to the list under the hanger **SOURCE**.

Vegetables, Dry Beans (page 35)

The word "tofu" was added to the list under the hanger **KIND**.

In column Q5 the examples under the hanger **IF NUMBER** were reordered and reworded.

The tomato slice example was changed from "med sl" to "thick sl" and was moved from the last example to the first.

Beef, Lamb, Veal, Game Meats (page 37)

The subhanger **If yes** was added under the subhanger **If grilled or barbecued**.

Poultry (page 42)

The subhanger **If grilled or barbecued**, and the subhanger under it, **If yes**, were added under the hanger **PREPARATION**.

Fish, Shellfish (page 44)

The subhanger **If crab** was added under the hanger **KIND**.

In column Q5 the hanger **IF BONELESS** was changed to **IF STICKS OR CAKES**; and the hanger **For shrimp** was changed to **IF SHELLFISH**.

The explanation and examples under both categories were modified.

Tacos, Burritos, Enchiladas, Fajitas, Quesadillas, Nachos (page 46)

The probe under the subhanger Tortilla/taco shell/chips was expanded to include chips.

The amount subhanger under the **Tortilla/taco shell/chips** subhanger was divided into two subhangers: **Tortilla/taco shell amount** and **Chip amount**. The probes attached to these subhangers was changed from "How many?" to "How many per item?"

Mixed Dishes, Casseroles, Stews (page 50)

The probe attached to the subhanger **If other ingredients** was changed from "What were they?" to "What kind?". The foods "tomato sauce" and "cream of mushroom soup" were added to the list in parentheses.

Spaghetti, Spaghetti and Sauce, Spaghetti with Meatballs/Meat Sauce (page 54)

A change was made under the hanger **IF COMMERCIALLY CANNED**. The probe attached to the subhanger **Meat** was changed from "Was it flavored with meat?" to "Did it come with meat?".

Three changes were made under the hanger **IF HOME RECIPE**. Two of the three changes were made under the subhanger **Sauce**. First, the probe attached to the subhanger was changed from "What kind of sauce?" to "What kind of sauce was it?". Second, below the subhanger **If commercial,** the subhanger **Meat** was added. Third, the probe attached to the subhanger **Meat**, under the hanger **IF HOME RECIPE**, was changed from "Was it made with meat, poultry, fish?" to "Was meat, poultry, or fish added in preparing the dish?".

Sandwiches (pages 56-68)

A global change was made to the sandwich categories. The subhanger **Cheese amount**, under the subhanger **If cheese**, has been modified. The probe attached to the subhanger has been changed from "How much?" to "Was it presliced?", and probes have been attached to the **If** subhangers to better quantify the amount.

Beef, Ham, Pork, Chicken, Turkey, Vegetarian, Other Sandwiches (page 59)

The subhanger **If soy products** was changed to **If soy products/meat substitute/vegetable burger**; and the attached probe was changed from "What was the brand name?" to "Did it have a brand name?".

Egg, Egg Salad Sandwiches (page 60)

The probe attached to the hanger **IF SCRAMBLED OR OMELET** was divided into two probes: "Were the eggs prepared with milk?" and "Were the eggs prepared with cheese vegetables, meat...?"

Spaghetti Sauce (page 73)

The same change was made to this category as the **Spaghetti, Spaghetti and Sauce, Spaghetti with Meatballs/Meat Sauce** category on page 54.

Chips, Puffs, Twists, Potato sticks (page 75)

The hanger **IF WEIGHT** in column Q5 was changed to **IF PACKAGE WEIGHT**.

The probe attached to the hanger **TYPE** was changed from "Were they regular, unsalted, lowfat...?" to "Were they regular, lowfat, fat free, unsalted...?" The subhanger and probe "**If fat free, lowfat, or reduced fat** -- Did they contain Olestra or Olean...?" were added.

Pretzels, Breadsticks (page 76)

The hanger **IF BREADSTICK** in column Q5, was changed to **IF BREADSTICK OR SOFT PRETZEL.**

Butter, Margarine, Spreads, Butter Replacements (page 77).

The term "spray" was added to the probe attached to the hanger **FORM**. In column Q5 the hanger **IF SPRAY** was added.

"...?" was also added to the probe attached to the hanger **FORM**.

Index

The following foods were added to the Index: chow mein noodles, molasses, red potatoes, tater tots, and tofu.

The category and reference page for meat loaf has been changed from **Meat, Poultry, Fish, Shellfish**, page 37, to **Mixed Dishes, Macaroni and Cheese, Spaghetti**, page 50.

3.C Interviewer Refresher Training Agenda

DEBRIEFING/REFRESHER TRAINING AGENDA

WHAT WE EAT IN AMERICA: 1994 - 1996 | **DAY ONE** | **JANUARY 6 - 7, 1996**

SESSION	TIME	SESSION TOPIC	SPECIFICS
1	8:30 - 9:45	Plenary Lecture	Changes and revisions to the Screener; introduction to the Missed Structure Folder; revisions to the HHF and FIB; and editing issues.
	9:45 - 10:15	BREAK	Reconvene into Community Sessions at 10:15
2	10:15 - 11:00	Missed Structure Procedure	Practice completing a Missed Structure Folder.
3	11:00 - 11:45	Screener Revisions	Two exercises enumerating houseoulds.
4	11:45 - 12:30	Housheould Folder	Review of completing a Household Folder; group and individual exercises.
	12:30 - 1:30	LUNCH	
5	1:30 - 3:45	Intake Training	Two group exercises and two dyads featuring foods that were expanded in the 1996 FIB.
	3:45 - 4:00	BREAK	
6	4:00 - 5:30	Editing	Practice editing all documents for two households.

DEBRIEFING/REFRESHER TRAINING AGENDA

WHAT WE EAT IN AMERICA: 1994 - 1996 | **DAY TWO** | **JANUARY 6 - 7, 1996**

SESSION	TIME	SESSION TOPIC	SPECIFICS
	8:30 - 8:45	Q & A	Answer questions from previous day.
7	8:45 - 9:15	Contracting and Gaining Cooperation	Contact strategies, advance materials, use of Handbook, Press releases, and PSAs.
8	9:15 - 10:00	Screener and Questionnaires	Sampling, neighbor contacts; changes to 1995 questionnaires and Intake grid. DHKS interviewing.
9	10:00 - 10:45	Intake Interviewing	Procedures for completing Intakes; taping interviews; completing Intake interviews over the telephone; setting the stage.
	10:45 - 11:00	BREAK	
10	11:00 - 12:00	Nonresponse Conversion	Successful techniques for dealing with nonresponders.
	12:00 - 2:30	Working Lunch	Supervisors will dine with their interviewers and discuss administrative issues and other related topics.

3.D Interviewer Training Agenda

WHAT WE EAT IN AMERICA: 1994-1996
INTERVIEWER TRAINING AGENDA

PRE-TRAINING -- Monday, March 4

General Interviewing Techniques (12:30-4:00) - Any interviewer new to Westat will be required to go through this session.

Introduction to the LTEs and the Basic Keys used for the FMS (4:30-7:00) (3 hours in afternoon or early evening)

Registration - Home Studies will be collected and trainees will receive per diem. (Prior to keyboard)

DAY ONE - Tuesday, March 5

#1: **Introduction to What We Eat in America** (8:30-8:45) - Introduction and welcome from HNIS and Westat staff including basic explanation of study.

#2: **Introduction to Training** (8:45-9:00) - Introduction to training staff and trainees. Brief overview of the week's agenda.

#3: **Receiving Assignments and Beginning the Interview** (9:00-10:15) - Overview of materials, listing process, and sample design. Also includes introduction at the door, answering questions, and using publicity materials.

BREAK (10:15-10:30)

#4: **Overview of the Interviewing Process** (10:15-11:00) - Introduction to the different questionnaires which will be used. Discussion of the basic contacting rules and timings for conducting the various types of questionnaires.

#5: **Introduction to the Household Folder and Administering the Screener** (11:00-12:00) - Using the Household Folder including description of sections, recording Screener results and recording SP identifying information. Conducting the Screener including identifying the respondent, rules for determining household members, and SP selection.

LUNCH (12:00-1:00)

#5: **Introduction to the Household Folder and Administering the Screener** (1:00-1:45) - Continuation of above presentation.

#6: **Quality Control of Listing** (1:45-2:45) - Discussion of the missed structure and missed DU procedure including documentation.

BREAK (2:45-3:00)

#7: **Demonstration of the Individual Intake Questionnaire** (3:00-4:00) - Overview of the process for conducting the intake.

#8: **Introduction to the Day 1 Intake, FIB and Measuring Guides** (4:00-5:30) - Introduction to all necessary materials, introduction to the respondent and the flow of the intake including the Quick List.

DAY 2 - Wednesday, March 6

#9: **Day 1 Intake Scripts** (8:30-10:15) - A variety of scripts using the Day 1 Intake. These scripts will build in complexity and focus on bringing out various specifications (such as recording combinations, etc.).

BREAK (10:15-10:30)

#9: **Day 1 Intake Scripts** (10:30-12:00) - Continuation of above session.

LUNCH (12:00-1:00)

#9: **Day 1 Intake Scripts** (1:00-2:45) - Continuation of above session.

BREAK (2:45-3:00)

#9: **Day 1 Intake Scripts** (3:00-5:30) - Continuation of above session.

DAY 3 - Thursday, March 7

#10: **Day 1 Intake Script and Missing Meal Data Retrieval** (9:30-11:00) - Script focusing on retrieval including a 30 minute session for missing meal data retrieval.

BREAK (11:00-11:15)

#11: **Role Plays** (11:15-1:00) - Dyads - Trainees will complete two role plays of the Day 1 Intake. One of these will be scripted and the other will be a "real" interview of their dyad partner. Trainees will be required to edit these questionnaires and turn them in at the end of the day.

LUNCH (1:00-2:00)

#12: **Overview of Paid Respondent Practice** (2:00-2:15) - Description of process for the afternoon including grouping trainees.

#13: **Paid Respondent Practice** (2:15-4:15) - Groups of 4 trainees Working in groups of 4, trainees will interview paid respondents using the Day 1 Intake Questionnaire. This session will include a variety of respondents (i.e., different ages, etc.) to expose the trainees to a wide range of problems. Trainees will be required to edit these questionnaires and turn them in at the end of the day.

BREAK (4:15-4:30)

#13: **Paid Respondent Practice** (4:30-6:30) - Groups of 4 trainees - Continuation of above session.

DAY 4 - Friday, March 8

#14: Answers to Questions from Previous Day (including comments from HNIS' observation) (8:30-8:45)

#15: Recording Contact Attempts (8:45-10:15) - Overview of the process of entering results into the FMS including discussion of the result codes and practice making simple entries. As an exercise, trainees will be required to enter the status of each role play and paid respondent interview from the previous day.

BREAK (10:15-10:30)

#16: Day 2 Intake Scripts (10:30-12:00) - Script using the Day 2 Intake.

LUNCH (12:00-1:00)

#17: Wrap Up Exercise for the Intake (1:00-2:45) - Exercise to pull together all of the concepts and specifications relating to the Intake and related materials. This session includes time for the trainees to complete the exercise and time to review it.

BREAK (2:45-3:00)

#18: The Household Questionnaire (3:00-4:30) - Conducting the Household Questionnaire including identifying the respondent.

#19: Editing the Individual Intake (4:30-5:30) - Exercise to practice recognizing problems with the intake.

DAY 5 - Saturday, March 9

#20: Administering the Screener - Part 2 (8:30-10:15) - Discussion of the more complex procedures and specifications for the Screener including the use of neighbor information. Introduction to different types (result codes) of completed Screeners.

BREAK (10:15-10:30)

#21: The Household Questionnaire - Part 2 (10:30-12:00) - Scheduling considerations for conducting the Household Questionnaire, answering respondent questions and specifications for the questionnaire.

LUNCH (12:00-1:00)

#22: Administering the DHKS (1:00-2:15) - Selecting the respondent and scheduling the interview, answering respondent questions, telephone procedures, and specifications for the questionnaire.

#23: Putting It All Together (2:15-2:45) - Practice doing interview in simulated real life setting. Working in small groups, trainees will go in front of the room to play role of interviewer (using all materials such as measuring guides, etc.).

BREAK (2:45-3:00)

#23: **Putting It All Together** (3:00-5:30) - Continuation of above presentation.

DAY 6 - Sunday, March 10

#23: **Putting It All Together** (8:30-9:30) - Continuation of above presentation.

#24: **Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals** (9:30-10:15) - A variety of exercises focusing on contact problems and procedures using the Household Folder and FMS. These exercises will build in complexity and focus on bringing out various procedures (both documentation of situation and handling the respondent). Will also include backup procedures and using Email.

BREAK (10:15-10:30)

#24: **Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals** (10:30-12:00) - Continuation of above presentation.

LUNCH (12:00-1:00)

#24: **Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals** (1:00-2:45) - Continuation of above presentation.

BREAK (2:45-3:00)

#25: **Transmitting FMS Data to Your Supervisor and Role Plays** (3:00-5:30) - Dyads - During Role Plays, trainees will be pulled to learn procedures for transmitting data including a practice where each trainee will transmit. When not in this session, trainees will complete a scripted Role Play which will include each questionnaire type. Trainees will be required to edit these questionnaires and turn them in at the end of the day.

DAY 7 - Monday, March 11

#24: **Recording Contact Attempts, Contact Problems and Procedures, Avoiding Refusals** (8:30-10:15) - Continuation of presentation from previous day.

BREAK (10:15-10:30)

#26: **Market Checks** (10:30-10:45) - Discussion of procedures for conducting a market check and completing the form.

#27: **Data Uses** (10:45-11:15) - HNIS presentation to further explain use of the data (using factbook as reference).

#28: **Final Review of the Questionnaire - Review of Paid Respondent and Role Play Experiences** (11:15-12:30) - Answer questions that still need clarification and review experience from paid respondent and role play interviews day. Answer any outstanding questions from the floor. [Trainees will receive individual feedback from the Review 2 forms. The information from this session along with the early editing will be the basis for the first newsletter.]

LUNCH (12:30-1:30)

#29: Quality Control and Administrative Procedures (1:30-3:00) - Discussion of all procedures including receiving feedback from the supervisors on data quality (using previous presentation material as an example).

BREAK (3:00-3:15)

#30: Explanation of Practice Interviews, Meeting with the Supervisor and Packing Up the LTEs (3:15-4:30) - Description of procedures for completing the practice interviews and of the process for evaluating them.

3.E Periodic Quizzes Administered to the Interviewers

FROM: Field Director

August 13, 1996
3:20 PM

TO: Supervisors

SUBJECT: Memo 617 Foods of America Quiz

---------- Message Contents ----------

In honor of the Olympics and the two political conventions, our summertime quiz will focus on "Foods of America."

Please enter your answer under each question and EMail back to your supervisor. If you are (still!) uncomfortable with EMail, you may copy the quiz onto a piece of paper, complete it, and mail it to your supervisor for grading.

What would you need to know OR where would you look in the Food Instruction Booklet (section and page number) AND what would your FIRST FIB QUESTION be if your respondent listed the following items on the Quick List?

1. A lunchable

2. 2 ears of corn, cooked in a steamer

3. 8 oz carton of Parmelat milk

4. fiddleheads

5. fat free thin cut ruffled potato chips

6. homemade lemonade with a stiff shot of rum

7. radicchio

8. banana-pineapple ice cream made in grandma's crank ice cream freezer

9. dandelions

10. a mess of crabs

FROM: Field Director August 13, 1996
3:50 PM

TO: Supervisors

SUBJECT: Memo 617 Foods of America Quiz

---------- Message Contents ----------

Please ensure that all of your interviewers pick up the quiz EMail.

Below each item is the answer. In some cases, there are two or more correct choices. If the interviewer has selected one or more of these, the item should be marked 100% correct. The grading scale is.

10 - Excellent

9 Good

8 Fair

7 or less failed

Once all of your interviewers have completed the quiz, please EMail me their grades. They must be completed by the last day in August unless someone is on vacation.

==++++++++++++++++++++++++++++++++++++==

In honor of the Olympics and the two political conventions, our summertime quiz will focus on "Foods of America."

Please enter your answer under each question and EMail back to your supervisor. If you are (still!) uncomfortable with EMail, you may copy the quiz onto a piece of paper, complete it, and mail it to your supervisor for grading.

What would you need to know OR where would you look in the Food Instruction Booklet (section and page number) AND what would your FIRST FIB QUESTION be if your respondent listed the following items on the Quick List?

1. A lunchable

"What is in the lunchable?" Lunchables are reported food item by food item, not as a "whole." For example, bologna, crackers, cheese, cookie, juice drink.

2. Two ears of corn, cooked in a steamer

FIB vegetable page 35 "Yellow or white"

3. 8 oz carton of Parmelat milk

"What is Parmalat?" (answer - liquid shelf-life milk) OR FIB beverages page 6 "What kind was it?"

4. fiddleheads

"What's that?" (answer baby ferns that you steam up and eat like spinach) OR FIB vegetable page 35 Greens

5. fat free thin cut ruffled potato chips

FIB snacks page 75 "Did they contain Oleastra or Olean..." (This was a change page this year. This is the only correct answer.)

6. homemade lemonade with a stiff shot of rum

FIB beverage page 12 mixed drink or cocktail probes

7. radicchio

"What's that?" or "Eaten as a vegetable or salad?" FIB vegetable page 35, Greens or FIB salad page 71 depending on answer

8. banana-pineapple ice cream made in grandma's crank ice cream freezer

FIB desserts page 28 "Was it regular, lowfat, fat free..."

9. dandelions

"Was this a vegetable or salad?" FIB vegetable page 35 Greens or Salad page 71 depending on answer

10. a mess of crabs

FIB Meat/Fish page 44 "What kind of crabs were they?"

WESTAT

An Employee-Owned Research Corporation

MEMORANDUM

TO: **What We Eat in America** Interviewer

April 17, 1997
Memo # 581

FROM: Judy Meader, Field Director

SUBJECT: Household Folder Exercise

There are numerous questionnaires to track and important scheduling rules to follow that are all part of your responsibilities as an interviewer on **What We Eat in America**. In addition to scheduling and administering interviews, you must keep careful records on the contacts that you make to complete each interview with each SP. The Household Folder is the instrument for recording contacts.

Please complete the enclosed exercises on the Household Folder worksheets, referring to Chapter 9 *Recording the Results of Your Work* in the **Interviewer Manual** if necessary. Since this is a Household Folder exercise, there is no need to fill in the NIRs if directed to do so. During your next report call, your supervisor will review the exercises with you.

Enclosures

Scenario #1 Label Days Tuesday Thursday Saturday

March 27	2 PM	Mailed advance letter and brochure.
April 1	1 PM	Visited DU. No one home. Left Sorry Card.
April 2	7 PM	Visited DU. No one home. Completed Neighbor page with neighbor. 3 SPs - Two males 1+ One Female 40+.
April 3	7 PM	Visited DU. Completed Screener with Household member. 3 SPs SP01 John male DOB 4-30-50 Age 45; SP02 Mary female DOB 11-9-52 Age 43; SP 03 Tom male DOB 1-15-78 Age 18. Too busy to do interviews. Set appointment for HHQ and Intakes for April 4 at 5 PM
April 4	5 PM	HHQ completed. Day 1 completed with John and Mary in person Tom was not home. Mary said he would be home all day April 6.
April 6	10 AM	Tom refused to do Day 1.
April 9	6 PM	John and Mary did Day 2 in person. Tom refused Day 1 again.
April 10	9 AM	Spoke to supervisor. She said to code Tom a final Day 1 refusal and to fill out an NIR and send the NIR and HHF to her.

Scenario #2 Label Days Monday Wednesday Thursday

April 8	5 PM	Mailed advance letter and brochure.
April 12	7 PM	Contact resident. Door closed in face with comment from adult male, "Don't bother me."
April 13	10 AM	Made second attempt at DU hoping for another resident. Householder angry, threatened to call the police. Contacted neighbor. This is a Message 13, all household members will be selected as SPs. SP01 male 40-50; SP02 female 40-50; SP03 male 15-20; SP04 male 1-5.
April 14	11 AM	Contacted second neighbor who confirmed information given by first.
April 15	6 PM	Returned to DU to attempt to complete screener with household member and to do interviews. Adult female said do not return, that husband will not allow family to do surveys.
April 16	10 AM	Reported information to supervisor. She instructs you to finalize the screener as an S03 and to finalize all other document dispositions as final refusals and to mail the HHF, Screener, and NIR to her.

1996

APRIL

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 April Fool's Day	2	3 Erev Passover	● Full Moon 4 Passover	5 Good Friday	6 Easter Saturday (A.C.T., N.S.W., N.T., Qld., S.A., Tas.)
7 Easter Sunday Daylight Savings Time begins	8 Easter Monday (Canada, Aust., U.K.)	9 Easter Tuesday	◑ Last Quarter 10	11 Passover ends	12	13
14	15	16	○ New Moon 17	18	19	20
21	22	23	24	◐ First Quarter 25 Anzac Day Observed (Aust., N.Z.)	26	27
28	29	30				

MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Supervisor's Scoring Instructions

Attached are the answer keys for the Household Folder exercise. During your report call with the interviewer, have him/her read his/her entries to you. Be aware of the following points:

1. Mailing the advanced materials does not constitute an "attempt."

2. In Scenario #2, the screener disposition code remains in the initial status until the supervisor gives approval to finalize.

3. The supervisor's conversation does not count as an "attempt." Once the supervisor instructs the interviewer to change or assign a final disposition code, the interviewer should line through the initial disposition code and record the final code above or to the side of it. You will notice on your Answer Keys that the initial codes for the Screener and the Intake Refusal have been lined through and finalized.

4. Only final disposition codes should be recorded in the Summary of Household Work section on Page One of the Household Folder.

5. Remarks do not have to be verbatim but should include all necessary information.

Scoring:

Excellent - Perfect Household Folders

Good One to two errors or omissions

Poor Three or more errors or omissions.

After scoring the exercise, please provide feedback and retraining to your staff. Send me the scores via EMail after all of your staff has completed the exercise.

ATTEMPT NUMBER	INT ID	DAY OF WEEK	DATE	TIME (SPECIFY AM OR PM)	TYPE OF CONTACT		RESULT OF CONTACT (SEE RESULT CODES)												REMARKS
					T	IP	SCREENER RESULT	HH QUEX RESULT	SP01 INT 1	SP01 INT 2	SP02 INT 1	SP02 INT 2	SP03 INT 1	SP03 INT 2	SP04 INT 1	SP04 INT 2	SP05 INT 1	SP05 INT 2	
1		Mon	4-1	1 (AM/PM)		✓	SNH												Left Sorry card
2		Tues	4.2	7 (AM/PM)		✓	SNH												
3		Wed	4.3	7 (AM/PM)		✓	S01	HAP	FAP		FAP		FAP						apt 4-4 5PM
4		Thur	4-4	5 (AM/PM)		✓		H01	F01		F01		FNH						Tom-home April 6
5		Sat	4-6	10 (AM) PM		✓							FRF						
6		Tues	4-9	6 (AM/PM)		✓				F01		F01	~~FRF~~ F11						Refused 2nd time
				AM PM															4-10 sup approved
				AM PM															making SP03 Tom
				AM PM															a final refusal
				AM PM															
				AM PM															
				AM PM															
				AM PM															
				AM PM															

Answer Key #2

1996

CASE #: _____ LISTING SHEET LINE #: _____

ADDRESS. _____

_____

MISSED STRUCTURE: ___ YES ___ NO

MISSED DU: ___ YES ___ NO

CONTACT DAYS _____ _____ _____

SAMPLE MESSAGE: _____ YEAR/QUARTER: _____

WHAT WE EAT IN AMERICA: 1994-1996
MAIN SURVEY
HOUSEHOLD FOLDER

BATCH #: _____

DIRECTIONS:

TELEPHONE NUMBER: (___)___-____

FIRST INTERVIEWER: _____ DATE ASSIGNED: __/__/__

SECOND INTERVIEWER: _____ DATE ASSIGNED: __/__/__

IF HOUSEHOLD WAS CREATED AS PART OF
MISSED DU PROCEDURE, RECORD ID OF PARENT CASE: _____

SCREENER RESULT CODE: 503
DATE COMPLETED: 4/15/96

HH QUEX RESULT CODE: H11
DATE COMPLETED: 4/15/96

SUMMARY OF HOUSEHOLD WORK

				INTAKE 1			INTAKE 2				IF SELECTED FOR DHKS	
	AGE:	SEX:	DATE OF BIRTH	DATE COMPLETED	DAY OF WK COMPLETED	RESULT CODE	ELIGIBLE DATES	DATE COMPLETED	DAY OF WK COMPLETED	RESULT CODE	EARLIEST APPOINTMENT DATE	ACTUAL APPOINTMENT DATE
SP 01 NAME: male	40-50	(M) F	__/__/__	4/15 DATE	Mon DAY	F11	__/__-__/__	DATE	DAY		__/__	__/__
SP 02 NAME: female	40-50	M (F)	__/__/__	4/15 DATE	Mon DAY	F11	__/__-__/__	DATE	DAY		__/__	__/__
SP 03 NAME: male	15-20	(M) F	__/__/__	4/15 DATE	Mon DAY	F11	__/__-__/__	DATE	DAY		__/__	__/__
SP 04 NAME: male	1-5	(M) F	__/__/__	4/15 DATE	Mon DAY	F11	__/__-__/__	DATE	DAY		__/__	__/__
SP 05 NAME:		M F	__/__/__	DATE	DAY		__/__-__/__	DATE	DAY		__/__	__/__

ATTEMPT NUMBER	INT ID	DAY OF WEEK	DATE	TIME (SPECIFY AM OR PM)	TYPE OF CONTACT		RESULT OF CONTACT (SEE RESULT CODES)												REMARKS
					T	IP	SCREENER RESULT	HH QUEX RESULT	SP01 INT 1	SP01 INT 2	SP02 INT 1	SP02 INT 2	SP03 INT 1	SP03 INT 2	SP04 INT 1	SP04 INT 2	SP05 INT 1	SP05 INT 2	
1		Fri	4-12	7 (AM) PM		✓	SRF												Male closed door in face threatened to call police
2		Sat	4-13	10 (AM) PM		✓	SRF												
3		Sun	4-14	11 (AM) PM		✓	SRF												
4		Mon	4-15	6 (AM) PM		✓	SRF (S03)	H11	F11		F11		F11		F11				2nd neighbor confirmation female refused
				AM PM															Supervisor approved Scr as S03 + said to finalize all other documents as final refusals.
				AM PM															
				AM PM															
				AM PM															
				AM PM															
				AM PM															
				AM PM															
				AM PM															
				AM PM															
				AM PM															

3.F Final Response Rates for the CSFII/DHKS 1996

by PSU and Questionnaire Type

Final Response Rates for CSFII/DHKS 1996 by PSU and Questionnaire Type

PSU	PSU LOCATION	SCREENER %	HHQ %	DAY 1 INTAKE %	DAY 2 INTAKE %	DHKS %
101	BOSTON, MA	98.1	87.5	80.5	73.5	87.1
103	SPRINGFIELD, MA	99.5	84.9	78.5	77.7	100.0
104	PROVIDENCE, RI	98.3	92.1	84.5	81.7	96.4
105	NEWPORT, RI	99.1	73.8	70.6	70.6	100.0
106	NASSAU/SUFFOLK, NY	100.0	84.0	80.8	78.8	93.7
107	KINGS/RICHMOND, NY	99.1	84.4	78.1	73.4	90.9
108	NEW YORK/QUEENS, NY	93.4	82.9	82.9	78.6	91.7
109	BRONX/PUTNAM, NY	98.9	96.3	84.4	76.6	94.4
112	BERGEN/PASSAIC, NJ	94.7	88.9	82.9	80.0	92.0
115	ATLANTIC CITY, NJ	98.9	82.7	73.9	73.9	96.8
116	PHILADELPHIA, PA/CAMDEN, NJ	98.9	75.0	69.0	68.7	96.8
118	HARRISBURG, PA	99.4	91.7	84.3	84.3	96.3
119	PITTSBURGH, PA	99.0	83.1	75.5	75.5	97.6
202	YOUNGSTOWN/WARREN, OH	100.0	92.0	83.5	83.5	97.1
204	CLEVELAND, OH	96.8	93.5	81.6	67.3	86.1
205	CINCINNATI, OH/DEARBORN, IN (COVINGTON, KY)	98.7	84.8	86.9	85.0	97.7
207	DETROIT, MI	96.7	73.2	74.7	70.9	100.0
210	GARY/HAMMOND, IN	98.5	89.8	86.1	75.4	91.1
211	CHICAGO, IL (CITY)	93.7	76.0	62.3	55.7	73.3
212	COOK/DU PAGE/MCHENRY, IL (CHICAGO)	96.5	97.0	87.7	87.7	100.0
214	KNOX/MERCER, IL	98.3	95.1	86.7	85.3	100.0
215	PEORIA, IL	99.1	90.9	84.9	82.0	100.0
216	ST LOUIS, MO/E. ST. LOUIS, IL	95.2	93.9	79.2	68.1	82.6
217	PIKE/RALLS, MO	100.0	96.7	98.3	97.4	94.1

Final Response Rates for CSFII/DHKS 1996 by PSU and Questionnaire Type

PSU	PSU LOCATION	SCREENER %	HHQ %	DAY 1 INTAKE %	DAY 2 INTAKE %	DHKS %
218	HOWARD/SALINE, MO	100.0	84.2	80.0	78.1	100.0
220	MINNEAPOLIS/ST PAUL, MN/WI	99.2	77.4	72.7	70.9	100.0
221	IOWA CITY, IA	100.0	93.0	84.0	78.7	91.4
224	CHEYENNE/ROOKS, KS	98.9	85.2	87.0	82.0	97.7
301	WASHINGTON, DC/MD/VA	98.9	88.9	81.7	75.2	80.0
303	BALTIMORE, MD	99.0	73.3	72.3	70.8	100.0
305	CHARLOTTESVILLE, VA	98.6	97.3	98.7	98.7	100.0
306	NORFOLK/VIRGINIA BEACH, VA	99.4	87.0	83.5	79.3	97.4
307	JOHNSON CITY, TN/BRISTOL, VA	99.6	86.5	80.5	70.4	80.4
310	GREENSBORO/WINSTON-SALEM, NC	100.0	89.2	76.9	68.5	78.7
312	FAYETTEVILLE, NC	97.6	74.5	70.7	61.6	78.8
313	NASHVILLE, TN	99.0	82.8	79.1	76.8	96.0
314	CHATTANOOGA, TN/DADE, GA	100.0	94.5	88.6	86.4	100.0
315	ATLANTA, GA	97.5	78.1	77.2	74.7	90.0
316	GREENE/LINCOLN, GA	99.0	88.7	87.2	80.0	89.8
318	TALLAHASSEE, FL	99.5	77.8	78.4	77.5	94.4
321	MIAMI/FORT LAUDERDALE, FL	100.0	66.7	68.7	66.3	83.3
325	FRANKLIN/MADISON, AR	98.9	96.2	93.1	86.1	90.5
326	POPE, AR	100.0	96.4	98.1	96.2	97.7
329	DALLAS, TX	99.3	87.8	82.5	81.4	93.5
330	ANDERSON, TX	100.0	93.5	88.4	85.5	91.5
331	AUSTIN, TX	98.5	81.2	77.6	68.8	80.5
333	HOUSTON, TX	97.5	73.7	66.7	66.7	88.2
334	BIG SPRING, TX	98.8	82.6	75.6	74.4	100.0
401	SEATTLE, WA	94.9	86.7	83.5	80.0	84.2
402	PORTLAND, OR	100.0	81.4	68.0	60.2	84.2

Final Response Rates for CSFII/DHKS 1996 by PSU and Questionnaire Type

PSU	PSU LOCATION	SCREENER %	HHQ %	DAY 1 INTAKE %	DAY 2 INTAKE %	DHKS %
403	MISSOULA, MT	98.2	94.4	93.0	93.0	98.3
404	BOISE CITY, ID	99.6	94.4	90.1	83.6	92.5
407	SAN FRANCISCO/OAKLAND, CA	96.7	86.0	84.1	76.6	77.8
408	SAN JOSE, CA	99.4	86.5	81.0	73.7	75.8
409	MERCED, CA	94.2	82.8	74.6	59.3	82.4
411	RIVERSIDE/SAN BERNARDINO, CA	99.1	75.7	68.1	56.0	95.5
412	LOS ANGELES CITY, CA	99.2	82.4	74.6	71.8	100.0
413	LOS ANGELES/LONG BEACH, CA	99.5	75.4	77.9	75.8	90.5
414	ANAHEIM/SANTA ANA, CA	98.2	87.5	73.7	68.4	80.0
415	SAN DIEGO, CA	99.0	80.8	77.8	77.8	94.1
418	PHOENIX, AZ	99.0	91.3	75.4	73.8	87.5`
420	CIBOLA/VALENCIA, NM	92.4	88.0	87.3	84.6	91.7
TOTALS		98.4	86.1	81.3	77.1	92.0

3.G Evaluation Form for Taped Interviews

1996

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

TAPE RECORDED INTERVIEW EVALUATION FORM

Affix mini-label or record Household ID:

Interviewer Name: _____ Interviewer ID: _____

Supervisor: _____

Evaluator: _____

Date: _____/_____

Type of Questionnaires Observed:

- ☐ Household Questionnaire
- ☐ Day 1 Intake → Number Evaluated: _____
- ☐ Day 2 Intake → Number Evaluated: _____
- ☐ Diet and Health Knowledge Survey Questionnaire

A. BEGINNING THE INTERVIEW

A1. Characterize the interviewer's interaction with the respondent at the beginning of the interview.

Unprofessional	1	2	3	4	5	Professional
Unprepared	1	2	3	4	5	Prepared
Unorganized	1	2	3	4	5	Organized
Unfriendly	1	2	3	4	5	Friendly

A2. Did the interviewer follow the correct procedures for securing the respondent's permission to tape the interview?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

B. HOUSEHOLD QUESTIONNAIRE

☐ IF NO HOUSEHOLD QUESTIONNAIRE EVALUATED, CHECK HERE AND GO TO SECTION C.

B1. Did the interviewer make a smooth transition to the Household Questionnaire?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

B2. Did the interviewer select the respondent by asking to speak to the person with the most knowledge of food preparation and purchasing for the household?

YES 1
NO 2
R ALREADY KNOWN 3

IF NO, EXPLAIN: _____

_____

B3. There are a number of places throughout the Household Questionnaire where the interviewer needs to transfer information from the Screener (e.g., occupation questions, school lunch questions, child care questions, etc.).

Did the interviewer refer to the Screener and correctly transfer the information?

YES 1
NO 2
CAN'T TELL 8

IF NO, EXPLAIN: _____

_____

B4. Did the interviewer use the hand cards presenting them to the respondent, and taking the cards back after the question was answered?

YES 1
NO 2
CAN'T TELL 8

IF NO, EXPLAIN: _____

_____

B5. Did the interviewer select the correct income card at Q47?

YES 1
NO 2
Q47 NOT ASKED 3
CAN'T TELL 8

IF NO, EXPLAIN: _____

_____

B6. Did the interviewer follow the correct income questions skip patterns?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

B7. Did the interviewer read the income questions in a calm, nonthreatening way?

YES 1
NO 2

B8. If the respondent refused to answer any or all of the income questions, did the interviewer accept the refusal in a pleasant professional manner?

YES 1
NO 2
NO REFUSALS 3

B9. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

B10. ADDITIONAL COMMENTS ON THE HOUSEHOLD QUESTIONNAIRE. _____

_____

_____

_____

B11. OVERALL EVALUATION OF THE HOUSEHOLD QUESTIONNAIRE INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

C. DAY 1 OR DAY 2 INTAKE

☐ IF NO INTAKE QUESTIONNAIRE EVALUATED, CHECK HERE AND GO TO SECTION D.

C1. Did the interviewer make a smooth transition to the Intake?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C2. Did the interviewer select an appropriate proxy respondent?

YES 1
NO 2
PROXY NOT NEEDED 3

IF NO, EXPLAIN: _____

_____

C3. Did the interviewer use the Intake timeline to demonstrate what day of the week and hours of the day constituted the Intake day?

YES 1
NO 2
NOT NECESSARY 3

IF NO, EXPLAIN: _____

_____

C4. Did the interviewer allow the respondent to recall food items for the Quick List without interruption?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C5. Did the interviewer ask the Intake questions in the proper sequence?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C6. Throughout the Intake Questionnaire, the interviewer has to use a variety of materials. Considering the hand cards, FIB and measuring aids, did the interviewer properly use the materials in a organized, effective manner?

YES 1
NO 2
CAN'T TELL 8

IF NO, EXPLAIN: _____

_____

C7. Did the interviewer always refer to the FIB for probes?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C8. Please rate the interviewer's skill in using the FIB.

EXCELLENT 1
GOOD 2
FAIR 3
POOR 4

C9. Did the interviewer always probe thoroughly?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C10. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C11. ADDITIONAL COMMENTS ON THE INTAKE QUESTIONNAIRE. _____

_____

_____

_____

_____

C12. OVERALL EVALUATION OF THE INTAKE QUESTIONNAIRE INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

D. DIET AND HEALTH KNOWLEDGE SURVEY QUESTIONNAIRE

☐ IF NO DHKS QUESTIONNAIRE EVALUATED, CHECK HERE AND GO TO SECTION E.

D1. Did the interviewer conduct the DHKS in person or by telephone?

IN PERSON 1
BY TELEPHONE 2 (D4)

D2. Was it appropriate for the interview to be conducted in person?

YES 1
NO ..... 2 } (D5)

IF NO, EXPLAIN: _____

_____

D3. Did the interviewer have an acceptable telephone technique?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D4. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D5. Did the interviewer ask the random start questions in a random pattern?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D6. ADDITIONAL COMMENTS ON THE DHKS QUESTIONNAIRE. _____

_____

_____

_____

_____

D7. OVERALL EVALUATION OF THE DHKS QUESTIONNAIRE INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

E. OBSERVATIONS TO BE RECORDED AFTER THE INTERVIEW

E1. How well did the interviewer:

a. Handle the respondent's questions?

Rambling	1	2	3	4	5	Clear
Uninformative	1	2	3	4	5	Informative

b. Maintain the flow and pace of the interview?

Poorly	1	2	3	4	5	Very well

c. Read the questions as written?

Poorly	1	2	3	4	5	Very well

d. Probe (without leading)?

Poorly	1	2	3	4	5	Very well

E2. What are the interviewer's strong points?

_____

_____

_____

_____

_____

_____

_____

E3. What areas, if any, need improvement?

_____

_____

_____

_____

_____

_____

_____

E4. Other comments:

3.H In-Person Observation Form

WHAT WE EAT IN AMERICA: 1994-1996
CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

IN-PERSON OBSERVATION FORM

Affix mini-label or record Household ID:

Interviewer Name: _____ Interviewer ID: _____

Supervisor: _____

Observer: _____

Date: _____/_____

Type of Questionnaires Observed:

- ☐ Screener
- ☐ Household Questionnaire
- ☐ Day 1 Intake → Number Observed: _____
- ☐ Day 2 Intake → Number Observed: _____
- ☐ Diet and Health Knowledge Survey Questionnaire

A. CONTACTING THE RESPONDENT

A1. Characterize the interviewer's interaction with the respondent during the introduction.

Unprofessional	1	2	3	4	5	Professional
Unprepared	1	2	3	4	5	Prepared
Unorganized	1	2	3	4	5	Organized
Unfriendly	1	2	3	4	5	Friendly

A2. Did the interviewer make the contact on an appropriate day of the week (according to the day intervals)?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

A3. Was it necessary for the interviewer to use advance or outreach materials?

YES 1
NO 2 (B1)

A4. Did the interviewer use these materials effectively?

YES 1 (B1)
NO 2

IF NO, EXPLAIN: _____

_____

B. SCREENER

☐ IF NO SCREENER OBSERVED, CHECK HERE AND GO TO SECTION C.

B1. Did the interviewer complete the Enumeration Table correctly?

YES 1
NO 2

B2. Did the interviewer use the hand cards while completing the Enumeration Table?

YES 1
NO 2

B3. Did the interviewer correctly complete Sampling Boxes 1 and 3?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

B4. Did the interviewer select the correct income hand card for the household?

YES 1
NO 2
INCOME NOT NEEDED 3

IF NO, EXPLAIN: _____

_____

B5. Were Sample Persons selected from the household?

YES 1
NO 2 (B7)

B6. Did the interviewer select the correct sample person(s) from the household?

YES 1
NO ..... 2 } (B8)

IF NO, EXPLAIN: _____

_____

B7. Did the interviewer "walk away" gracefully?

YES 1
NO 2

B8. Did the interviewer administer the Missed DU procedure correctly?

YES 1
NO 2
NOT REQUIRED 3

B9. ADDITIONAL COMMENTS ON THE SCREENER. _____

_____

_____

_____

_____

B10. OVERALL EVALUATION OF SCREENER INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

C. HOUSEHOLD QUESTIONNAIRE

☐ IF NO HOUSEHOLD QUESTIONNAIRE OBSERVED, CHECK HERE AND GO TO SECTION D.

C1. Did the interviewer make a smooth transition to the Household Questionnaire?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C2. Did the interviewer select the respondent by asking to speak to the person with the most knowledge of food preparation and purchasing for the household?

YES 1
NO 2
ALREADY KNOWN 3

IF NO, EXPLAIN: _____

_____

C3. There are a number of places throughout the Household Questionnaire where the interviewer needs to transfer information from the Screener (e.g., occupation questions, school lunch questions, child care questions, etc.).

Did the interviewer refer to the Screener and correctly transfer the information?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C4. Did the interviewer use the hand cards correctly by selecting the proper card, presenting it to the respondent, and taking the cards back after the question was answered?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C5. Did the interviewer select the correct income card at Q47?

YES 1
NO 2
Q46 NOT ASKED 3

IF NO, EXPLAIN: _____

_____

C6. Did the interviewer ask the correct income questions?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C7. Did the interviewer read the income questions in a calm, nonthreatening way?

YES 1
NO 2

C8. If the respondent refused to answer any or all of the income questions, did the interviewer accept the refusal in a pleasant professional manner?

YES 1
NO 2
NO REFUSALS 3

C9. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

C10. ADDITIONAL COMMENTS ON THE HOUSEHOLD QUESTIONNAIRE. _____

_____

_____

_____

C11. OVERALL EVALUATION OF THE HOUSEHOLD QUESTIONNAIRE INTERVIEW.

Unacceptable 1 2 3 4 5 Excellent

D. DAY 1 OR DAY 2 INTAKE

☐ IF NO INTAKE QUESTIONNAIRE OBSERVED, CHECK HERE AND GO TO SECTION E.

D1. Did the interviewer make a smooth transition to the Intake?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D2. Did the interviewer select an appropriate proxy respondent?

YES 1
NO 2
PROXY NOT NEEDED 3

IF NO, EXPLAIN: _____

_____

D3. Did the interviewer use the Intake timeline to demonstrate what day of the week and hours of the day constituted the intake day?

YES 1
NO 2
NOT NECESSARY 3

IF NO, EXPLAIN: _____

_____

D4. Did the interviewer allow the respondent to recall food items for the Quick List without interference?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D5. Did the interviewer ask the Intake questions in the proper sequence?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D6. Throughout the Intake Questionnaire, the interviewer has to use a variety of materials. Considering the hand cards, FIB and measuring aids, did the interviewer properly use the materials in a organized, effective manner?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D7. Did the interviewer always refer to the FIB for probes?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D8. Please rate the interviewer's skill in using the FIB.

EXCELLENT 1
GOOD 2
FAIR 3
POOR 4

D9. Did the interviewer always probe thoroughly?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D10. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

D11. ADDITIONAL COMMENTS ON THE INTAKE QUESTIONNAIRE. _____

_____

_____

_____

_____

D12. OVERALL EVALUATION OF THE INTAKE QUESTIONNAIRE INTERVIEW.

Unacceptable	1	2	3	4	5	Excellent

E. DIET AND HEALTH KNOWLEDGE SURVEY QUESTIONNAIRE

☐ IF NO DHKS QUESTIONNAIRE OBSERVED, CHECK HERE AND GO TO SECTION F.

E1. Did the interviewer have the questionnaire properly set up at the start of the interview? That is, had he/she checked a box for each of the random start questions?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

E2. Did the interviewer conduct the DHKS in person or by telephone?

IN PERSON 1
BY TELEPHONE 2 (E4)

E3. Was it appropriate for the interview to be conducted in person?

YES 1
NO ..... 2 } (E5)

IF NO, EXPLAIN: _____

_____

E4. Did the interviewer have an acceptable telephone technique?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

E5. Did the interviewer appropriately answer any questions the respondent had?

YES 1
NO 2

IF NO, EXPLAIN: _____

_____

E6. ADDITIONAL COMMENTS ON THE DHKS QUESTIONNAIRE. _____

_____

_____

_____

_____

E7. OVERALL EVALUATION OF THE DHKS QUESTIONNAIRE INTERVIEW.

Unacceptable	1	2	3	4	5	Excellent

F. OBSERVATIONS TO BE RECORDED AFTER THE INTERVIEW

F1. How well did the interviewer:

a. Handle the respondent's questions?

Rambling	1	2	3	4	5	Clear
Uninformative	1	2	3	4	5	Informative

b. Maintain the flow and pace of the interview?

Poorly	1	2	3	4	5	Very well

c. Read the questions as written?

Poorly	1	2	3	4	5	Very well

d. Probe (without leading)?

Poorly	1	2	3	4	5	Very well

e. Accurately record answers?

Poorly	1	2	3	4	5	Very well

f. Complete Household Call Record entries?

Poorly	1	2	3	4	5	Very well

F2. At any time during the interview, did you have to make suggestions or otherwise intervene?

YES 1
NO 2 (F5)

F3. How many times did you intervene?

_____
NUMBER OF TIMES

F4. Please describe at what point in the interview you intervened including a description of the problem the interviewer was having.

F5. What are the interviewer's strong points?

F6. What areas, if any, need improvement?

F7. Other comments:

3.I Field Staff Memorandums

WESTAT
An Employee-Owned Research Corporation

MEMORANDUM

TO: What We Eat in America Interviewer

May 10, 1996
Memo # 595

FROM: Judy Meader, Field Director

SUBJECT: Newsletter, FIB revised page, Press Release, EMail instructions

In this mailing, you will find:

1. A copy of the spring edition of *Food for Thought*, the project newsletter, chocked full of interesting tidbits.

2. A revised page for your FIB. Please remove page 75 from your FIB and insert the revision. You will notice that both Chips, Puffs, Twists, Potato Sticks and Crackers now have a probe about Olestra. You will read about Olestra in Susie McNutt's column in the newsletter.

3. A press release. This is the release that precipitated USDA Secretary Dan Glickman's appearance on the **Today** program. Please insert the release into your Handbook.

4. Instructions on how to reply to an EMail message that is sent to you. Please insert the instructions into your FMS Manual.

WESTAT

An Employee-Owned Research Corporation

MEMORANDUM

TO: "What We Eat in America" interviewer

August 26, 1996

Memo #618

FROM: Judy Meader, Field Director

SUBJECT: Newsletter and Debriefing Questionnaire

Here is the long-awaited summer edition of the newsletter. Thanks to everyone who submitted stories and questions. Susie McNutt and Amy Green addressed some nagging recording and editing issues in their columns while I interviewed Linda Ingwersen and Junko Tamaki for mine.

Also in this mailing is the 1996 Debriefing Questionnaire. You might be surprised to receive the Debriefing Questionnaire prior to the end of the year. USDA is anxious to get your opinions on how things are working in the field and requested that we send the questionnaire to you earlier than usual. Please complete the questionnaire and return it to Jenn Kirkhoff in the enclosed self-addressed envelope. **Do not mail it with your work in a Tyvek envelope. It must be returned to Jenn and it must be returned no later than September 13.**

SNACKS

Food/Drink Category	Q4. Description of Food/Drink	Q5. How much of this (FOOD) did you actually (eat/drink)?
Chips, Puffs, Twists, Potato sticks	**KIND:** What kind were they? (Were they potato chips, corn chips, corn puffs, tortilla chips, Funyuns...?) **IF POTATO CHIPS:** Were they regular or ruffled? Were they thick cut? **TYPE:** Were they regular, lowfat, fat free, unsalted...? **If fat free, lowfat, or reduced fat** – Did they contain Olestra or Olean...? **BRAND:** What was the brand name? **ADDITIONS:** Did you add anything to the (FOOD)? RECORD EACH ADDITION ON A SEPARATE LINE IN THE FOOD/DRINK COLUMN, COMPLETE Q5 FOR THE ORIGINAL FOOD, AND THEN ASK Q4 AND Q5 FOR EACH ADDITION. **Examples:** *Dip, see below* *Salsa, page 73*	**IF NUMBER:** How many? **IF VOLUME:** How much? (Cup) **IF PACKAGE WEIGHT:** What was the package weight and portion eaten? (**Example:** 1/2 of 7 WO package)
Crackers	**KIND:** What kind were they? (Were they saltines, graham crackers, animal crackers, peanut butter sandwich crackers, rice cakes, melba toast...?) **TYPE:** Were they regular, lowfat, fat free, low sodium...? **If fat free, lowfat, or reduced fat** – Did they contain Olestra or Olean...? **BRAND:** What was the brand name? **ADDITIONS:** Did you add anything to the crackers? RECORD EACH ADDITION ON A SEPARATE LINE IN THE FOOD/DRINK COLUMN, COMPLETE Q5 FOR THE ORIGINAL FOOD, AND THEN ASK Q4 AND Q5 FOR EACH ADDITION. **Examples:** *Dip, see below* *Cheese, page 23* *Peanut butter, page 77*	**IF NUMBER:** How many and what was the shape? (rec, sq, wedge) **IF WEIGHT:** What was the package weight and portion eaten? (**Example:** 1/4 of 12 WO box) **IF VOLUME:** How much? (Cup) **IF GRAHAM CRACKERS:** How many and what was the shape? (small rec, lrg rec, sq)
Dip	**KIND:** What kind of dip was it? (Was it onion, bean, guacamole...?) **(IF SALSA, SEE PAGE 73)** **TYPE:** What were the main ingredients? (Was there lowfat sour cream, sour cream, lowfat cream cheese, cream cheese, cheese, yogurt, beans, avocado...?) **BRAND:** What was the brand name?	**IF VOLUME:** How much? (Tsp, Tbsp, Cup) **IF WEIGHT:** What was the container weight and portion eaten? (**Example:** 1/3 of 5.5 WO container)

Food/Drink Category	Q4. Description of Food/Drink	Q5. How much of this (FOOD) did you actually (eat/drink)?
Popcorn	**KIND:** What kind of popcorn was it? (Was it plain, with butter, cheese, sugar, caramel coated...?) **BRAND:** What was the brand name? **PREPARATION:** How was it prepared? (Was it microwaved, air-popped, popped in oil, commercially popped...?) **If microwaved** – Was it regular, lowfat, low sodium...? **If air-popped** – Was salt added? Was butter or margarine added? **If yes** – Which one? **ADDITIONS:** Did you add anything to the popcorn? RECORD EACH ADDITION ON A SEPARATE LINE IN THE FOOD/DRINK COLUMN, COMPLETE Q5 FOR THE ORIGINAL FOOD, AND THEN ASK Q4 AND Q5 FOR EACH ADDITION.	**IF VOLUME:** How much? (Cup) SPECIFY POPPED OR UNPOPPED **IF WEIGHT:** What was the package weight and portion eaten? SPECIFY POPPED OR UNPOPPED **(Example:** 3.5 WO package, unpopped, ate all)
Pretzels, Breadsticks	**TYPE:** Were they hard or soft? Were they regular, unsalted...? Were they coated or filled? **If yes** – What was the coating or filling? **If breadsticks** – What was the brand name? **ADDITIONS:** Did you add anything to the pretzels? RECORD EACH ADDITION ON A SEPARATE LINE IN THE FOOD/DRINK COLUMN, COMPLETE Q5 FOR THE ORIGINAL FOOD, AND THEN ASK Q4 AND Q5 FOR EACH ADDITION. **Example:** *Mustard, page 78* *Dip, page 75*	**IF VOLUME:** How much? (C) **IF NUMBER:** How many and what was the shape? **(Examples:** 3-ring, 10 thin sticks, dutch, rod, log, pretzel chip, bite size) **IF WEIGHT:** What was the pkg weight & portion eaten? **IF BREADSTICK OR SOFT PRETZEL:** Number and size (sml, med, lrg) or shape and dimension (L x W) **(Ex:** 2 recs; 5" L x 1" W)
Nuts, Seeds	**KIND:** What kind were they? (Were they almonds, cashews, mixed nuts, sunflower seeds, mixed seeds...?) **TYPE:** Were they unroasted, roasted, dry roasted, honey roasted...? **SALT:** Were they salted? **IF NUTS (NOT MIXED):** Were they coated with chocolate, carob...? **IF MIXED NUTS:** Did it have peanuts?	**IF VOLUME:** How much? (SPECIFY IN SHELL OR SHELL REMOVED; SPECIFY IF WHOLE OR CHOPPED) **IF WEIGHT:** What was the weight of whole package and portion eaten? SPECIFY IF IN SHELL OR SHELL REMOVED **(Example:** 1/3 of 8 WO pkg peanuts, w/ shell) **IF NUMBER:** How many?

NEWS

UNITED STATES DEPARTMENT OF AGRICULTURE
Office of Communications News Room 460-A
Washington, DC 20250-1300
Internet: News @usda.gov Phone: 202-720-9035
World Wide Web Home Page: http://www.usda.gov

Release No. 0197.96

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WHAT AND WHERE OUR CHILDREN EAT -- 1994 NATIONWIDE SURVEY RESULTS

WASHINGTON, April 18, 1996--More of the nation's children are eating away from home during the mid-1990's than in the late 1970's. They're also consuming more beverages and grain-based snack foods and combination foods, such as pizza. And they're eating less fat and drinking less milk, according to data from the first year of the current three-year U.S. Department of Agriculture nationwide food consumption survey--What We Eat In America.

"Parents want to know what their children are eating when they don't eat meals with the family, and everyone wants to know how they can make healthier food choices," said Agriculture Secretary Dan Glickman. "This is the only nationwide survey that measures the kinds and amounts of food eaten by Americans, and links the diet and health knowledge of individuals with their food and nutrient intakes. It provides important data for parents as well as policy makers for making decisions on how to improve and promote good nutrition habits."

"The first-year survey results show on any given day in 1994, nearly half of three- to five-year-olds consumed some food or drink provided outside the home, compared to one-third in the 1977-78 survey," said Deputy Under Secretary for Research, Education, and Economics Cathie Woteki. "Food eaten away from home now contributes an average 20 percent of total calories for this age group."

Roughly two-thirds of those who are school-aged -- six through 19 -- consumed food and drink that was provided away from home in 1994, up from about 55 percent in 1977-78. On average, outside food contributes about one-quarter of total calories for six- to 11-year-olds, increasing to one-third of total calories for 12- to 19-year-olds. But one in three of the school-aged youths gets more than 40 percent of total calories from outside food. "That's quite a bit of their day's intake," said Glickman, "so choosing a healthful diet is just as important when eating meals away from home."

Where are our kids eating out? The three- to five-year-olds most often ate at someone else's house, followed by fast food restaurants, and then day care. Grade-school-aged children most often ate at the school cafeteria, followed by someone else's house, then fast food restaurants. By the teen years, however, fast food restaurants were the most frequent sources of outside food for boys and a close second to the school cafeteria for girls.

-more-

"The fact that grade-school-aged children and teenage girls most often eat at the school cafeteria when they eat outside their homes emphasizes the significance of USDA's Team Nutrition effort," said Glickman. "This innovative program, which makes significant changes in the nutrition standards for school meals to ensure they meet the Dietary Guidelines for Americans, provides a critical source of both good nutrition and education for America's youth so they know how to make their own healthy food choices.

"It also delivers on the Clinton Administration's commitment to work with schools and communities across the country to make the new school meals policy a national priority and to put children first," he said.

"Except for milk," said Woteki, "kids are drinking more beverages across the board." The biggest increase has been in consumption of non-citrus juices, which include apple juice, grape juice, and juice blends. Two to three times more children and teens drank non-citrus fruit juices on a given day in 1994 than did in 1977-78. And preschoolers consumed four times more non-citrus fruit juices, with apple juice the most popular choice.

Soft drinks also had a dramatic increase in consumption among all groups, especially among teenage boys whose daily intake nearly tripled between 1977-78 and 1994. Nearly three-fourths of teenage boys drank an average of 34 ounces--almost three 12-ounce cans' worth--per day in 1994, and two-thirds of teenage girls had 23 ounces--about two cans' worth.

Milk consumption, on the other hand, dropped markedly across all age and gender groups, as it has since the late 1970's. A little more than half of teens drank milk in 1994, compared to some three-fourths in the late 1970's. Intakes two years ago ranged from 12 ounces for preschoolers and school-aged girls to around 16 ounces for school-aged boys.

Lowfat and skim milk are now consumed more frequently than whole milk among all but the five-and-under group, she said. The proportion of school-aged youths drinking lowfat or no-fat milk has doubled since the late 1970's.

Other trends identified in the first year of the ongoing survey:

* America's children reflected the national trend in consumption of crackers, popcorn, pretzels, and corn chips. "The proportion of children and teens consuming these grain-based snack foods doubled between 1977-78 and 1994," Woteki said, noting that they're slightly more popular among girls. Thirty-five percent of school-aged girls ate at least one of these snack foods in a day in 1994.

* Grain-based combinations, such as pasta with sauce, rice dishes and pizza, also were more popular in 1994. About 45 percent of children and teens ate at least one of these combinations on a given day versus about 25 percent in the late 1970's. "Pizza is the most frequently reported grain combination food among school-aged kids," said Woteki. "They're also eating more tacos and burritos." USDA's Team Nutrition program provides innovative, lowfat recipes for schools to continue offering many of these favorites while educating children to make healthful food choices.

-more-

* Fruit consumption declines as children get older. Seven out of ten children under age five consumed some fruit or fruit juice on any one day, dropping to less than half of teens. This decline is not seen for vegetables. At least three-fourths of all children, regardless of age, reported eating at least one vegetable on a given day. "What is of interest are the vegetable choices," said Woteki. "White potatoes--particularly french fries and potato chips--were most popular, followed by tomato products, including spaghetti-type sauces and salsa."

* "Low on the vegetable hit parade are green beans, corn, green peas, and lima beans, with less than 16 percent of children or teens reporting having eaten them on a given day," she said. And the percentage was even lower for the nutrient-packed dark greens or deep-yellow vegetables.

* Today's kids are consuming less fat as a percentage of total calories, reflecting the trend for the population as a whole. In 1994, fat intake ranged from an average of 32 percent for teen girls to 34 percent for preschoolers. That's compared to the 37 to 40 percent range in the late 1970's. The Dietary Guidelines for Americans, which provide guidance for maintaining a healthful diet, recommends 30 percent or less of calories from fat.

* Children and teen-aged boys are meeting the Recommended Dietary Allowance for most nutrients," Woteki said. "However, teen-aged girls averaged 85 percent or less of the RDA for calcium, magnesium, zinc and vitamin E." Through participating schools, Team Nutrition provides nutrition education these girls can use to help them make healthful food choices throughout their lives that will increase their RDA's for these nutrients.

#

NOTES TO EDITOR:

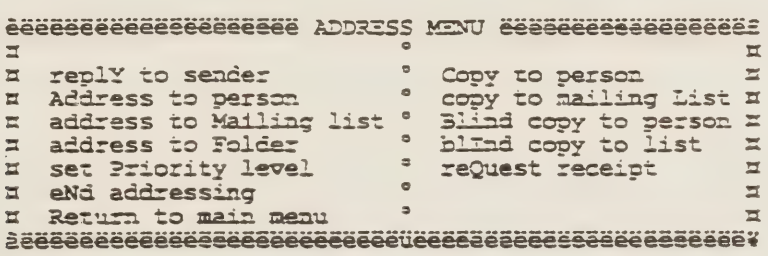
FOR SURVEY DATA: *Contact Sharon Mickle, survey specialist/nutritionist, Food Surveys Research Group, Beltsville Human Nutrition Research Center, Agricultural Research Service, USDA, 4700 River Road, Riverdale, Md. 20737. Telephone: (301) 734-8457; e-mail: smickle@rbhnrc.usda.gov*

FOR TEAM NUTRITION INFO: *Contact Team Nutrition, USDA's Food and Consumer Services, 3101 Park Center Drive, Alexandria, Va. 22302. Telephone: (703) 305-2039.*

INSTRUCTIONS FOR REPLYING TO AN EMAIL MESSAGE

On occasion, you will receive an EMail message from the Field Director, Research Assistant, or your supervisor requesting that you type your reply below the original EMail and return them to the person who originated the message. Here are the instructions for doing that.

1. Using the arrow key, move to the end of the original message and type your reply. Press F10. You will see this menu.



2. Select (highlight) "replY to sender". Press the ENTER key or "Y" (Notice Y is the capital letter in reply).

3. This message will appear on your screen:

Do you wish to retain all the original addressees?

Type Y for Yes, ENTER or N for No, ESC to cancel

4. Select "N" for no <u>if you do NOT want your response to be sent to everyone who appears on the original message as an addressee</u> OR "Y" for yes <u>if you DO want your response to be sent to everyone who appears as an addressee on the original message.</u>

EXAMPLE: The Field Director sends a message to the entire field staff of 102. You wish to respond to her question. Type your response below the original message. Select "replY to sender," select "N" to ensure that the EMail only returns to her and not all 102 addressees, and send your mail on its way.

3.J Interviewer Debriefing Questionnaire Showing Tally of Responses and Comments

what we eat in

AMERICA

1994-96

WHAT WE EAT IN AMERICA: 1994 - 1996

CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS

1996 INTERVIEWER DEBRIEFING QUESTIONNAIRE



INTERVIEWER ID: _____

NAME: _____

SUPERVISOR: _____

PSU #: _____

PSU NAME OR LOCATION: _____

This questionnaire is designed to help Westat and USDA learn more about your experiences collecting data for the "What We Eat in America" survey. For each question, please circle the code or fill in the blanks, keeping in mind any special problems you may have encountered during the entire time you worked on the survey.

In which region of the United States do you primarily conduct interviews?



NORTHEAST	1 (21)
MIDWEST	2 (21)
SOUTH	3 (24)
WEST	4 (16)

Note: The number in parentheses following a verbatim response is the number of interviewers providing the response. Responses without numbers were reported by only one interviewer.

1. Advance letters, survey brochures, and print and electronic publicity placed by USDA, are used to prepare the respondents for your visit and to establish the legitimacy of the survey. Do you have any suggestions for revising or improving the following material:

	YES	NO
a. The introductory letter?	1 (12)	2 (70)

If yes, what suggestions? SHORTEN THE LETTER; MAKE ENVELOPE MORE OFFICIAL LOOKING; INCLUDE A BRIEF SUMMARY SHEET OF SURVEY RESULTS; SEND IT CERTIFIED; HAVE A MORE IMPRESSIVE LETTERHEAD; ALLOW INTERVIEWER TO SIGN IN INK.

b. The survey brochure?	1 (4)	2 (78)

If yes, what suggestions? INCLUDE A BETTER GRAPH; INCLUDE LIST OF AGENCIES THAT USE THE DATA.

c. The one-page flyers?	1 (3)	2 (79)

If yes, what suggestions? FLYER REPEATS BROCHURE, NOT NECESSARY; NEEDS TO BE MORE IMPRESSIVE.

d. The Handbook?	1 (5)	2 (77)

If yes, what suggestions? MAKE THE INFORMATION EASIER TO READ; ADD TABS; LAMINATE THE PAGES; PUT IN A SOFT-COVER BINDER TO MINIMIZE WEIGHT OF BOOK.

e. The press releases?	1 (6)	2 (76)

If yes, what suggestions? LAMINATE THEM; RELEASE THEM MORE THAN ONCE A YEAR.

f. The radio public service announcements?	1 (6)	2 (76)

If yes, what suggestions? RELEASE THEM MORE THAN ONCE A YEAR.

g. Are there additional types of materials that you would have found useful in gaining respondent cooperation?	1 (6)	2 (76)

If yes, specify. GIVE A REFRIGERATOR MAGNET; PROVIDE MORE DETAILED DESCRIPTION OF HOW DATA IS USED; SEND A THANK YOU NOTE.

YOUR ATTENTION TO THE INTAKE QUESTIONNAIRES AND FIB FOR THE NEXT SERIES OF QUESTIONS.

2. Thinking back over the course of the survey, reflect on how the respondents recalled foods for the Quick List. Listed below are four strategies often used in recalling foods. Please rank them from (1) to (4), with (1) being the strategy most used by respondents and (4) the strategy least used by respondents.

	1	2	3	4	NA
a. Recalling foods by time of day (i.e., at 6 a.m., at 10 a.m., at noon)?	(21)	(44)	(8)	(9)	(0)
b. Recalling foods by eating occasion (i.e., breakfast, lunch, afternoon snack, dinner)?	(59)	(17)	(2)	(4)	(0)
c. Recalling foods by the day's events (i.e., getting dressed, on the way to the office, at a meeting)?	(5)	(5)	(31)	(40)	(1)
d. Recalling foods by physical location at which they were eaten (i.e., at home, at work, at the gym, at the movies)?	(1)	(7)	(35)	(33)	(6)

3. How easily can respondents report home food preparation practices, such as adding salt or using fat in cooking, when they personally **did not** prepare the food item?

Very Easily				Not Easily At All	No Answer
1 (4)	2 (17)	3 (20)	4 (26)	5 (13)	(2)

4. Are there any other illustrations, similar to the chicken parts, fish fillet, and concentric circles, that should be added either to the laminated card or the pages of the FIB that would be helpful to you and the respondent in quantifying foods eaten?

YES	1		(13)
NO	2	(Q5)	(68)
NO ANSWER			(1)

If yes, what illustrations are they? OVALS (FRENCH BREAD); VOLUME FOR POTATOES; SHOW A LOG PRETZEL; SHOW SIZES FOR SMALL, MEDIUM, AND LARGE FRUITS AND VEGETABLES; PICTURE OF WEDGE SHAPE.

5. Did you ever refer to the general instructions at the front of the FIB?

YES	1		(35)
NO	2	(Q5b)	(45)
NO ANSWER			(2)

5a. If yes, what section(s) did you refer to the most? BRACKETING (21); SANDWICH DEFINITIONS (2); SECTION ON MEASURING GUIDES (2); RECORDING QUANTITIES.

5b. What other material should be included in the general instructions to make them more useful to you?

PUT INDEX IN FRONT OF BOOK, NOT BACK; SECTION ON RECORDING FOODS FROM DATA RETRIEVAL SOURCES; DEFINITIONS OF FAST FOODS.

6. How accurately do you think respondents report the following food details?

	Very Accurately				Not At All Accurately	No Answer
SPECIFIC FOODS:						
Beverages: Vitamin C added or not	1 (12)	2 (37)	3 (24)	4 (7)	5 (2)	(0)
Juices: 100% juice or not	1 (26)	2 (41)	3 (11)	4 (2)	5 (2)	(0)
Juices: dilution strength	1 (31)	2 (24)	3 (19)	4 (5)	5 (2)	(1)
Soups: dilution strength	1 (37)	2 (22)	3 (18)	4 (3)	5 (0)	(2)
Grain products: 100% whole wheat or not	1 (29)	3 (34)	3 (14)	4 (3)	5 (1)	(1)
Butter/margarine: salted or unsalted	1 (32)	2 (24)	3 (16)	4 (9)	5 (0)	(1)
Mayonnaise: real or Miracle Whip type dressing	1 (42)	2 (25)	3 (10)	4 (5)	5 (0)	(0)
Canned fruits: packed in light syrup, heavy syrup, juice, or water	1 (20)	2 (31)	3 (24)	4 (7)	5 (0)	(0)
Yogurt: whole, lowfat, nonfat.	1 (35)	2 (30)	3 (13)	4 (3)	5 (1)	(0)
Yogurt: with/without low-calorie sweetener	1 (19)	2 (25)	3 (30)	4 (7)	5 (1)	(0)
Cheese: processed, natural, spread, or cheese food	1 (12)	2 (30)	3 (26)	4 (11)	5 (3)	(0)
Ham/Pork: cured or fresh	1 (18)	2 (28)	3 (26)	4 (7)	5 (3)	(0)
ALL FOODS:						
Sweetened with sugar or low-calorie sweetener	1 (29)	2 (31)	3 (19)	4 (3)	5 (0)	(0)
Lowfat, reduced fat, fat-free, or regular	1 (32)	2 (31)	3 (15)	4 (4)	5 (0)	(0)
Low sodium, reduced sodium, or regular	1 (19)	2 (33)	3 (25)	4 (5)	5 (0)	(0)

7. Aside from the specific foods listed in question 6, are there other foods for which respondents have difficulty reporting particular details?

YES	1		(34)
NO	2	(Q8)	(44)
NO ANSWER			(4)

7a. If yes, what foods and which details cause the difficulty?

HOT DOGS (2); RESTAURANT FOODS (2); DIMENSIONS OF MEATS AND DESSERTS (2); MIXED DISHES: CHIPS WHEN EATEN OUT OF A COMMON BAG; HOME RECIPES; HANDFULS; PINCHES; RICE; ICE CREAM; SWEETENED AND FLAVORED WATERS; DIFFERENCE BETWEEN LEAN AND REGULAR MEATS; DELI MEATS; CASSEROLES; ETHNIC FOODS.

8. Thinking about plain drinking water, do you think it could be reported like other beverages and recorded on the Intake grid instead of being reported in a separate question?

YES	1	(Q9)	(46)
NO	2		(36)

8a. If no, why not?

SEEMS EASIER TO ASK AS A SEPARATE QUESTION; SHOULD REMAIN AS IT IS; PEOPLE GIVE ESTIMATES FOR DRINKING WATER.

9. USDA prefers that the respondents answer "don't know" rather than guess at the answers to the food probes. Do you think the respondents are aware that "don't know" is an acceptable answer?

YES	1	(32)
NO	2	(47)
NO ANSWER		(3)

10. When a respondent reports an exceptionally large quantity of a food eaten or a beverage drunk at one occasion (i.e., 16 weight ounces of Cheerios or 36 fluid ounces of Pepsi), what is your approach for confirming that the respondent didn't make an error in reporting?

REPEAT THE QUESTION (18); ASK TO SEE THE CONTAINER OR CUP (13); PROBE (6); POINT TO THE 16 FO MEASURING CUP TO COMPARE WITH AMOUNT REPORTED; CONFIRM WHAT THE RESPONDENT SAID; ASK IF CONSUMED AT ONE TIME OR THROUGHOUT THE DAY; ASK TO SEE PACKAGE.

THE INTAKE REVIEW QUESTIONS GIVE THE RESPONDENT AN OPPORTUNITY TO RECALL FOODS THAT HE/SHE MIGHT HAVE FORGOTTEN EARLIER.

REVIEW

6. Now let's see if I have everything. I'd like you to try to remember anything else (you/NAME) ate or drank yesterday, that you haven't already told me about, including anything (you/NAME) ate or rank while preparing a meal or while waiting to eat.

6a. Did (you/NAME) have anything to eat or drink between midnight yesterday and (your/NAME'S) (TIME) (FIRST OCCASION)?

6b. Now at (TIME) for (THIS OCCASION) (you/NAME) had (FOODS), did (you/NAME) have anything else?

6c. Did (you/NAME) have anything to eat or drink between (your/NAME's) (TIME) (THIS OCCASION) and (TIME) when (you/NAME) had (NEXT OCCASION)?

REPEAT 6b AND 6c FOR EACH OCCASION EXCEPT LAST OCCASION. FOR LAST OCCASION, GO TO 6d.

6d. Now at (TIME) for (LAST OCCASION) (you/NAME) had (FOODS),did (you/NAME) have anything else?

6e. Did (you/NAME) have anything to eat or drink after (your/NAME's) (TIME) (LAST OCCASION) but before midnight last night?

11. How often do the review questions pick up additional foods?

ALWAYS	1		(3)
OFTEN	2		(23)
SOMETIMES	3		(38)
RARELY	4		(17)
NEVER	5	(Q14)	(1)

12. How often do each of the following parts of the review help respondents recall an additional food? Rank from (1) to (3), with (1) for the most used and (3) for the least used.

	1	2	3	NA
a. Mention of time (i.e., at 6 a.m....)?	(11)	(21)	(48)	(2)
b. Mention of occasion (i.e., at your breakfast.....)?	(33)	(31)	(16)	(2)
c. Mention of foods already reported (i.e., you had coffee, toast, and jam...)?	(41)	(21)	(18)	(2)

13. What types of foods are most remembered during the review process?

SNACKS (43); BEVERAGES (40); FRUIT (5); CANDY (4); BREAD SLICES (3); BREAKFAST (2); DINNER (2); SIDE DISHES (2); CEREAL.

14. Do you find the review easy to administer?

YES	1	(Q15)	(59)
NO	2		(23)

14a. If no, how might the review be reworded to make it easier to administer?

USE ONLY OCCASIONS, NOT TIMES AND OCCASIONS.

NOW TURN YOUR ATTENTION TO THE CONDUCT OF INTAKE INTERVIEWS OVER THE TELEPHONE.

15. Have you conducted any Day 2 Intakes over the telephone this year?

YES	1		(46)
NO	2	(Q23)	(30)
NO ANSWER			(6)

15a. If yes, approximately how many?

1	2	3	4	5	6	7	8	9	10+
(13)	(9)	(10)	(4)	(3)	(2)	(1)	(1)	(0)	(3)

16. What specific difficulties do you encounter when administering the Day 2 Intake over the telephone?

GATHERING QUANTITIES OF FOODS EATEN; MAKING RESPONDENT WAIT WHILE RECORDING INFORMATION; USING THE FIB; KEEPING RESPONDENT FOCUSED ON THE SPECIFICS SUCH AS THE QUICKLIST; GATHERING DATA RETRIEVAL INFORMATION.

17. Compared to the in-person interview, in telephone interviews is it more difficult, less difficult, or about as difficult for respondents to estimate amounts of food they ate?

MORE	1	(11)
LESS	2	(0)
ABOUT THE SAME	3	(35)

18. Are quantities eaten of any foods particularly difficult to estimate over the telephone?

YES	1		(12)
NO	2	(Q19)	(34)

18a. If yes, which foods?

ANY FOOD NEEDING THE THICKNESS STICKS (2); RULER MEASUREMENTS (2); MEATS; BREADS; PIZZA; COOKIES; HEIGHT, WIDTH, AND LENGTH DIMENSIONS; FISH; AMOUNTS OF FLUIDS.

19. During the telephone interview, how often do you ask the respondent to get out the measuring cups and spoons that you had presented as the household level incentive to quantify foods?

ALWAYS	1		(13)
OFTEN	2		(8)
SOMETIMES	3		(10)
RARELY	4		(5)
NEVER	5	(Q20)	(10)

19a. How do you tell if they use the measuring cups and spoons during the interview?

LISTEN FOR THE NOISE OF THE CUPS (3); ASK IF GIFT SET IS AVAILABLE; RESPONDENT MENTIONS HAVING THEM; CAN'T REALLY TELL IF THEY ARE USING THEM; IF RESPONSES SEEM TO MATCH THE CUP AND SPOON SIZES.

20. During the conduct of the telephone interview, how often do respondents look at food labels?

ALWAYS	1	(1)
OFTEN	2	(8)
SOMETIMES	3	(23)
RARELY	4	(8)
NEVER	5	(6)

21. Is not being able to use the handcards a problem in administering the intake interview over the telephone?

YES	1		(5)
NO	2	(Q22)	(41)

21a. If yes, list which handcard(s).

SOURCE OF FOOD CARD - 13 (2).

22. Have you completed any Day 2 Intakes over the telephone with children age 6 to 11?

YES	1		(5)
NO	2	(Q23)	(41)

22a. If yes, how did the adults assist in the interview? (For example, by being on an extension telephone).

MOTHER ON PHONE, CHILD NEARBY; CHILD ASKS PARENT QUESTIONS; EXTENSION PHONE.

NOW FOR SOME GENERAL QUESTIONS ABOUT ADMINISTERING THE QUESTIONNAIRES.

23. How often do respondents keep their DHKS appointments?

ALWAYS	1	(5)
OFTEN	2	(44)
SOMETIMES	3	(20)
RARELY	4	(9)
NEVER	5	(2)
NO ANSWER		(2)

24. How often do respondents anticipate the questions you are about to ask and provide answers out of order? (For example, giving the ages for all household members one after the other instead of waiting for the question in sequence).

ALWAYS	1		(1)
OFTEN	2		(24)
SOMETIMES	3		(28)
RARELY	4		(15)
NEVER	5	(Q25)	(10)
NO ANSWER			(4)

24a. For each questionnaire, please specify question numbers where this happens most frequently:

Questionnaire Name	Question Number(s)				
Screener	____	____	____	____	____
HHQ	____	____	SEE NEXT PAGE FOR BREAKDOWN	____	____
Day 1 Intake	____	____	____	____	____
Day 2 Intake	____	____	____	____	____
DHKS	____	____	____	____	____

24a.

Screener

Q3 - (01)
8 - (09)
9 - (16)
Q10 - (14)
Q11 - (10)
Q12 - (07)
Q13 - (02)

HHQUEX

Q3 - (01)
Q4 - (01)
Q5 - (02)
Q6 - (01)
Q10 - (09)
Q11 - (02)
Q12 - (01)
Q13 - (03)
Q14 - (03)
Q15 - (01)
Q16 - (01)
Q17 - (01)
Q18 - (01)
Q19 - (04)
Q20 - (04)
Q21 - (01)
Q22 - (02)
Q23 - (02)
Q25 - (01)
Q33 - (01)
Q34 - (03)
Q35 - (04)
Q36 - (03)
Q37 - (04)
Q38 - (02)
Q39 - (02)
Q40 - (02)
Q41 - (02)
Q42 - (01)
Q43 - (01)
Q44 - (01)
Q51 - (01)

DAY 1

Q1 - (07)
Q2 - (05)
Q3 - (06)
Q4 - (08)
Q5 - (11)
Q7 - (09)
Q8 - (07)
Q9 - (04)
Q20 - (01)
Q21 - (01)
Q38 - (01)
Q41 - (01)

DAY 2

Q1 - (10)
Q2 - (05)
Q3 - (09)
Q4 - (12)
Q5 - (13)
Q6 - (01)
Q7 - (10)
Q8 - (08)
Q9 - (03)
Q13 - (03)
Q14 - (01)
Q17 - (01)

DHKS

Q1 - (01)
Q5 - (02)
Q6 - (03)
Q16 - (01)
Q18 - (01)
Q19 - (01)
Q28 - (01)
Q33 - (01)
Q36 - (01)
Q38 - (01)
Q39 - (01)

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25. Overall, are there sections in ANY of the questionnaires that flow in a way that is awkward or difficult for you and/or the respondent?

YES	1		(29)
NO	2	(Q26)	(44)
NO ANSWER			(9)

If yes, list the questionnaire name, describe the difficulty, and indicate if you, the respondent, or both of you had the difficulty.

QUESTIONNAIRE	DIFFICULTY	INT	R	BOTH
		1	2	3
		1	2	3
	SEE NEXT PAGE	1	2	3
	FOR BREAKDOWN	1	2	3
		1	2	3
		1	2	3

NOW LET'S TALK ABOUT THE CHANGES YOU WOULD RECOMMEND FOR FUTURE "WHAT WE EAT IN AMERICA" SURVEYS:

26. ***TRAINING:***

a. For the **initial training** session, what are your recommended changes for the order of training presentations, the time allotted, and the materials presented?

MORE PRACTICE PROBING VAGUE ANSWERS SUCH AS "A HANDFUL, A SERVING," ETC.; SEE A VIDEO OF SCREENER; A VIDEO OVERVIEW; MORE TIME ON INTAKE TRAINING; MORE MOCK INTERVIEWS; MORE TRAINING ON ETHNIC FOODS; MORE TRAINING ON FMS/E-MAIL; MORE PAID RESPONDENTS; MORE BREAKS; TRAINING DOESN'T HAVE TO BE 13 DAYS LONG!

b. Do you have any recommendations for the content of the presentations of materials at the **annual refresher training?**

TOO RUSHED; SUPERVISOR SHOULD REVIEW COMMON ERRORS PERSONALLY WITH EACH INTERVIEWER; NEED MORE ROLE PLAYS; GREAT; REALLY LIKED IT; TOO LONG; BORING.

1 = INTERVIEWER 2 = RESPONDENT 3 = BOTH

SCREENER

Q7 PERSONS AWAY FROM HOME	1
RACE QUESTION OFFENDS RESPONDENTS	2

HHQ

Q3, 4, 5, 6 EXPENSES DIFFICULT FOR SOME Rs	2
Q15 DIFFICULT TO CLASSIFY SOME JOBS (2)	2
INCOME SERIES (5)	2
Q32 WIC SHOULDN'T BE ASKED IF NO CHILD	1

DAY 1 & 2

Q7, 8, 9 ASKING ACROSS	3
PROVIDING INFORMATION OUT OF ORDER	2
AWKWARDNESS OF REVIEW (5)	3

DAY 1

Q19 & 20 SINGLE DIET/MULTIPLE OBJECTIVES	3
Q22 AWKWARD WHEN MEAT WAS REPORTED	3
Q26 KNOWLEDGE OF FISH OILS	2
Q24-27 ASKING ABOUT FISH OILS AND FIBER WHEN R REPORTED NOT TAKING VITS/MINS	3
Q36 R's UNDERSTANDING OF VIGOROUS EXERCISE	2

DAY 2

PROVIDES TOO MUCH INFORMATION OUT OF ORDER	1

DHKS

QUESTIONNAIRE IS TOO LONG (6)	3
BOX 1 (PAGE 10) SHOULD BE SIMPLIFIED (2)	1
Q1 DIFFICULT TO MAKE R UNDERSTAND THAT THE QUESTION PERTAINS TO AGE GROUPS NOT WHAT R PERSONALLY EATS	3
Q5 DIFFICULT TO FIND HEALTH CONDITIONS QUICKLY	3
Q10-14 TOO WORDY/TONGUE TWISTERS (8)	3
Q27-31 NEED TO REPEAT ANSWER CHOICES	1
Q33 DOESN'T FLOW WELL	3

27. Would you change the ***INCENTIVES*** or the timing of their presentation?

MUGS BREAK/NOT GOOD GIFT (2); NEED A WIDER VARIETY; SHOULD GIVE SOMETHING AFTER THE DHKS; GIVE MONEY; GIVE MEASURING CUPS, SPOONS, AND BAG AFTER DAY 1; GIVE MEASURING CUPS AND SPOONS AFTER DAY 2.

28. If you could change the survey design in one or two **significant** ways, what would you recommend?

USE COMPUTER FOR INTAKES (2); RELAX THE DAY 2 TIMING WINDOW, MORE FLEXIBILITY (2); ADD MORE FOODS TO THE FIB; START WITH INTAKE NOT HHQ; ALLOW APPOINTMENTS FOR BOTH INTAKES; MAKE HHQ A TELEPHONE INTERVIEW; REDUCE INCOME QUESTIONS IN HHQ; SIMPLIFY Q10-14 IN DHKS; ALL DHKSs SHOULD BE IN-PERSON; REDUCE TIME BETWEEN DAY 2 AND DHKS INTERVIEW DATE.

LET'S CONCLUDE WITH A FEW THOUGHT-PROVOKING QUESTIONS ABOUT FUTURE USDA SURVEYS:

29. If this survey were a **TELEPHONE SURVEY**, what difficulties would you expect to encounter when administering:

a. The Screener?

REFUSALS (14); LACK OF TRUST (9); HANG-UPS (7); LOW RESPONSE RATES (7); PROBLEM GATHERING Q14 DATA (5); ACCURACY OF ENUMERATION (4); GATHERING RACE/ETHNICITY DATA (4); LESS RAPPORT WITH R; DIFFICULTY ESTABLISHING IMPORTANCE/LEGITIMACY OF SURVEY WHEN NOT IN-PERSON (2); EXCLUSION OF NON-TELEPHONE HOUSEHOLDS; IDENTIFYING REFERENCE PERSON; COULDN'T CONDUCT MISSED DU PROCEDURE.

b. The Household Questionnaire?

REFUSAL TO GIVE INCOME INFORMATION (35); NO PROBLEM AT ALL (9); REFUSALS (6); DIFFICULT WITHOUT HANDCARDS (5); LACK OF TRUST (5); BREAKOFFS (2); QUESTIONNAIRE IS TOO LONG FOR TELEPHONE (2).

c. The Intake Questionnaires?

Q5 QUANTITY DATA WOULD BE POOR (21); TOO TIME CONSUMING (12); BREAKOFFS (3); REFUSALS (3); TOO MUCH DETAIL NECESSARY (2); DATA QUALITY WOULD BE POOR (2); WOULDN'T LEAVE PHONE TO LOOK AT LABELS (2); IF DAY 1 INTAKE IN-PERSON, OKAY TO DO DAY 2 INTAKE ON TELEPHONE (2); PERSONAL CONTACT NECESSARY TO MAINTAIN INTEREST (2); DIFFICULT TO USE ADULT ASSISTANT DURING CHILD'S INTAKE.

d. Using the FIB?

DEAD AIR, TIME CONSUMING WHILE INTERVIEWER FLIPS THROUGH FIB (18); AWKWARD TO USE ON THE TELEPHONE (5); GENERAL DIFFICULTY (3).

e. Using the measurement guides?

LACK OF DATA QUALITY BY NOT SEEING CUPS/SPOONS (27); GENERALLY IMPOSSIBLE TO DO INTAKE WITHOUT CUPS/SPOONS (6); SEND CUPS/SPOONS/VISUAL AIDS BEFORE INTERVIEW (8); ASK TO USE OWN KITCHENWARE MEASURERS (2); NEED TRAINING TO USE CORRECTLY.

30. If this survey were a **MAIL SURVEY**, what difficulties would you expect the respondent to encounter when attempting to complete:

a. The Screener?

WOULD THROW IT OUT (22); SAMPLING PROBLEMS (11); LOW RESPONSE RATE (10); INCOMPLETED DATA (2); ILLITERACY OR FOREIGN LANGUAGE WOULD EXCLUDE PERSONS; Q14 WOULD NOT BE ANSWERED; RACE/ETHNICITY QUESTIONS WOULD NOT BE ANSWERED; ENUMERATING A HOUSEHOLD IS CONFUSING.

b. The Household Questionnaire?

FAILURE TO ANSWER INCOME SECTION (23); LOW RESPONSE RATE (10); FAILURE TO ANSWER ALL QUESTIONS (7); SKIP PATTERN CONFUSION (5); EASY, NO PROBLEM.

c. The Intake Questionnaires?

INACCURATE FOOD INTAKE REPORTING (27); INACCURATE FOOD QUANTITIES (7); NEED TRAINING ON HOW TO COLLECT INTAKE DATA (7); LOW RESPONSE RATE (7); PRESENT INTAKE WOULD BE TOO DIFFICULT FOR LAY PERSON (7); CONFUSING (2); COULD BE DONE IF SIMPLIFIED TO '*WHAT DID YOU EAT AND HOW MUCH?*;' TOO MUCH GUESSING; WOULD NOT TAKE THE NECESSARY TIME TO DO THOROUGH JOB; WOULD BE UNABLE TO UNDERSTAND BRACKETING.

d. Using the FIB?

IMPOSSIBLE WITHOUT TRAINING (22); UNABLE TO FOLLOW PROBES (6); WOULDN'T USE IT (4); TOO TIME CONSUMING TO LOOK UP FOODS (3); OVERWHELMING (3); CONFUSING; ADDITIONS WOULD BE MISSED.

e. The DHKS Questionnaire?

EASY, NO PROBLEM (28); SKIPS WOULD CONFUSE (5); LOW RESPONSE RATE (4); QUESTIONNAIRE IS TOO LONG (3); LACK OF QUALITY - WHO WAS THE RESPONDENT OR WAS IT A GROUP EFFORT? (3); WOULDN'T FOLLOW RANDOM STARTS (2); ILLITERACY (2); SEEING ANSWER CATEGORIES WOULD LEAD RESPONDENT.

f. Using the measurement guides?

LACK OF ACCURACY (19); NO PROBLEM IF CUPS/SPOONS SENT TO RESPONDENT AHEAD OF TIME (5); TOO FRUSTRATING/CONFUSING (2); WOULDN'T USE THEM; WOULD GUESS AT QUANTITIES.

3.K Summary of In-Person Interviewer Debriefing

The following is a summary of the in-person interviewer debriefing held in Rockville, Maryland on February 7, 1997.

Advance Materials and Gaining Cooperation

Several types of materials were used to prepare the respondents for the interviewer's visit, as well as to establish the legitimacy of the survey. Most interviewers liked the introductory letter and felt it gave them and the study credibility. Some believed, though, the letter was too involved and worried that people wouldn't take the time to read it. To improve the letter, it was suggested that it be printed in larger font, that color be added to the letterhead, and that commonly asked questions be displayed on the reverse side.

Most everyone agreed that the brochure was well received, professionally designed, and effective. Several interviewers stated that most respondents remember receiving the brochure. The one-page flyers were especially useful with children and teenagers.

The majority of the interviewers would have preferred the Handbook to be in a soft cover binder, instead of hard cover. It was awkward to use in its present form. One interviewer said that she would give the Handbook to a spouse to read while the other did the intake. Several commented that the National Education Association endorsement letter was persuasive when interviewing teachers or parents of children. Although no one knew of a respondent who had seen the press release, the press release seemed to make many people more cooperative when they were shown a copy of the release or asked if they had seen it in their local newspaper. They worked well in areas where the entire city was one PSU, but were a little less effective in small, scattered, segments.

The interviewers discussed the various methods they used to gain respondent cooperation. Stressing the seriousness and weight of USDA seemed to work well for many interviewers. Others focused on the need for people in specific populations, like senior citizens. Most everyone agreed that discussing the data uses, particularly improving food labels and school lunch programs, with the respondents helped create positive reactions.

Intake Interviews and the Food Instruction Booklet

Turning to the intake questionnaires, the interviewers first reflected on how respondents recalled food for the Quick List. Most interviewers agreed that recalling foods by eating occasion (i.e., breakfast, lunch) was the most common method. Recalling foods by time of the day was the next most frequently used technique. Several interviewers mentioned difficulties with shift workers and their recall of meals within the 24-hour period. Some suggested a laminated card showing the 24-hour time period.

The majority of the interviewers felt that respondents had difficulty reporting home food preparation practices when they personally did not prepare the food item. Some respondents took a guess but most admitted that they had no knowledge of the food preparation.

The thickness sticks and the illustration of food, such as the chicken and fish parts, seemed to be very helpful to the interviewers and the respondents. It was suggested that illustrations of shrimp, bigger concentric circles, and cubes and squares be added.

Concerning the general instructions in the front of the Food Instruction Booklet, the majority of the interviewers referred to them early in the study but, once comfortable with procedures, rarely looked at them. It was suggested that the need for bracketing be imbedded with the FIB, next to the food items where bracketing is required.

The most common difficulties in reporting particular details of foods occurred with Chinese and other ethnic foods, mixed dishes, fruit drinks, and meals eaten in restaurants.

The interviewers agreed that the plain drinking water question should be left where it is -- as a separate question in the non-food section of the Intake Questionnaire.

Concerning the response of "don't know," the interviewers were unable to confirm that the majority of the respondents realized that "don't know" was an acceptable answer in lieu of guessing.

When a respondent reported an exceptionally large quantity of food or beverage they consumed, most interviewers used the measuring guides in order to confirm the response.

The intake review questions helped the respondents to remember additional foods they may have forgotten. Most interviewers found the statement - "If you think of anything else as we go along..." - very helpful. The respondents most often remembered additional snacks and beverages. With practice, the interviewers found the review progressively easier to administer.

Conducting Day 2 Intakes over the Telephone

All of the interviewers at the debriefing conducted Day 2 Intakes over the telephone. The interviewers discussed several difficulties they encountered during this procedure. Several of the interviewers felt that it was harder to get accurate measurements and quantities over the telephone. They felt that not being there to assist with and monitor the accurate use of the measuring guides was a disadvantage. Overall, most interviewers thought the telephone interviews made it more difficult for respondents to estimate the amounts of food they ate. Also the interviewers had no way of knowing if the respondents were using the measuring cups and spoons to estimate quantities. Other concerns were that they lost the respondents' attention and felt more rushed on the telephone. Some interviewers thought that interviewing males and teenagers by telephone was particularly difficult. Several interviewers suggested headsets to make it more manageable to flip through the FIB.

General Comments about Questionnaire Administration

Most interviewers found that the respondents began to anticipate the questions and provide answers out of order. For example, during the Day 2 Quick List, respondents would try to tell details of the food items. The interviewers were aware of this, though, and took control.

Asked to elaborate on awkward or difficult sections in the questionnaires, the interviewers mentioned the following:

- Redundancy in asking where food was obtained and eaten;
- Structure of DHKS question asking about light versus not light on label; and
- The job classifications on the Household Questionnaire hand card.

The one bilingual interviewer at the debriefing was asked to comment on the Spanish translated documents. She said they worked fine for her but the wording was too formal and refined for many respondents. She added that she had no difficulty translating the Food Instruction Booklet as needed.

Recommended Changes for Future CSFII/DHKS Surveys

Recommendations for future waves of What We Eat In America was discussed with the interviewers. For the initial training session, several interviewers suggested allotting more time for the screener, the household folder, enumeration, and sampling. Most interviewers agreed that overall, the length of training was about right. The interviewers felt that the annual refresher training was very beneficial. Interviewers found swapping hints and learning from each other helpful.

The cups and spoons and the nylon sacks were thought to be great incentives. Some interviewers recommended sturdier mugs or sports bottles to replace the drinking mugs.

Recommended changes for the survey design included shortening the length of time between Day 2 and DHKS and selecting the DHKS SP as soon as you enter the names. Other suggestions were to give them a magnet for the DHKS postcard and to make an appointment for Day 2.

The interviewers shared their feelings about future USDA surveys. If this survey were a telephone survey, the interviewers felt there would be a lot of dishonest answers during the screener. The income and assets questions in the Household Questionnaire may also cause some difficulty. The Intake Questionnaires would be extremely time consuming and you would lose the rapport that you get at the door. Some interviewers thought using the FIB and measurement guides would be awkward.

If this survey were a mail survey, the interviewers thought the screener would have to be sent to an enormous number of people in order to meet sample size requirements. Some interviewers believed we would lose the elderly segment of the population if they had trouble reading or understanding the materials. The Intake Questionnaire would be hard to standardize and several interviewers thought the respondents would bias their responses to match what they think we are looking for. The respondents could probably manage the DHKS and the use of the measuring guides, but may have difficulties with the FIB.

The Field Management System (FMS)

The interviewers discussed the Field Management System and offered their ideas for changes. Most found it "user friendly" and a good management tool. Some of the suggested improvement changes were:

- When a case is final, it should "drop off" the screen;
- Add fields for respondent's mailing address and telephone number;
- Provide ability to transfer cases between regions; and
- When quarters are overlapping, have the option of selecting a quarter instead of having to scroll through many cases.

All of the interviewers felt that E-mail was an absolute necessity to keeping them informed of procedural changes/updates and receiving immediate feedback. They would have liked to have had printers which would have enabled them to print out E-mail messages.

4.A General Edit Forms for Non-Intake Questionnaires

General Edit of Household Folder, Screener, and Household Questionnaire/NIRF

Interviewer ID: _____ Week ending: _____

Page _____ of _____

Item Description [Check if problem.]	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel
HHF recording attempts incomplete							
Screener Cover incomplete							
Q1 ≠ Enumeration Table							
Enumeration incomplete/incorrect							
Q11 and Q12 (DOB and Age) inconsistent							
Screener R not identified							
Q's 14, 14a, 14b inappropriately skipped							
Q14 Hand Card number missing							
Q14 Wrong Hand Card							
Box 1 incorrect							
Box 3 incorrect							
SP selection incorrect							
Q's 20 & 21 inappropriately skipped							
Box 6 incorrect							
Box 8 incorrect							
Sp selection incorrect							
HHQ Cover incomplete							
Q's 10-16 person list incorrect							
Q's 10-16 names/line letter incorrect							
Q47 Hand Card number missing							
Q47 Wrong Hand Card							
NIRF inappropriately skipped							
Total Errors							

Comments: _____

General Edit of DHKS Folder, DHKS Questionnaire/NIRF

Interviewer ID: _____ Week ending: _____

Page _____ of _____

Item Description [Check if problem.]	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel	Minilabel
DHKSF recording of attempts incomplete							
DHKS Cover incomplete							
Random start skipped							
NIRF inappropriately skipped							
Total Errors							

Comments: _____

4.B Missing Detail Report

Interviewers with Missing Detail(s)

11:10 Friday, April 28, 199

Year 2 Data

OBS	PSU	Int ID	Percent of foods with Missing Detail(s)	Total Number of Foods	Number of Foods with Missing Detail(s)
1					
2					
3					
4					
5					
6					
7					
8					
9					
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14					
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50					

4.C General Interviewer Error Report

Date Generated: February 13, 1994
Quarter 1 / Year 1 Report

REGION=

	INTERVIEWER ERRORS														
Interviewer	No Edit	Comb. not bracketed	Eating Occasion Blank	Time is Blank	No AM/PM	DRT Incorrect	Difficult to Read	Not enough space used	QL not Underlined	QL not Transferred	Reference Unclear	No 'Nothing Else'	Observation Incompl	TOTAL ERRORS PER INTERVIEWER	TOTAL INTAKES
***															
TOTAL PER ERROR TYPE															

4. D Survey Net Adjudication Report

Date: 5/03/95

CODER ID : _____

VERIFIER ID: _____

Survey Net Discrepancy Report
Coder vs Verifier
COVER SHEET

ADJUDICATOR:

DATE: __/__/__

ID	SP	Intake Date	Date Coded	Date Verified	Variable Name	Coder Entry (44 chars display only)	Verifier Entry (44 chars display only)	Result
								1 2 3
								1 2 3
								1 2 3

Summary

File	#Input	#Processed
Coded		
Selected		
Verified		

Verifier File:
Coder File:

Number of Errors: _____

4.E Survey Net Error Rate Calculation

Survey Net Error Rate Calculation

The two error rates calculated for Survey Net coders are the cover sheet error rate and the food data error rate. The calculations used for the error rates are shown below:

1. **Cover sheet error rate** = 100 X (number of cover sheet fields with errors ÷ total number of cover sheet fields)

   Total number of cover sheet fields = 17

2. **Food data error rate** = 100 X (number of food fields with errors ÷ number of food fields entered)

   Number of food fields entered = the number of foods entered X 17

Cover sheet fields

1. Household ID
2. Subject ID
3. Date of Intake
4. Date of interview
5. Day of week of interview
6. First name of respondent
7. Date of birth
8. Age
9. Sex
10. Interviewer ID
11. Time interview started – day, month, year
12. AM/PM
13. Time interview ended – day, month, year
14. AM/PM
15. Sample year
16. Day 1 or 2
17. Coder ID

Food fields

1. Time
2. AM/PM
3. What called
4. Line number
5. Combination type
   Combination number
6. Food code

7. Modified food
   Modified food description
8. Unknown food category
   Unknown food description
9. How many
10. Measure
11. Unknown amount
    Unknown amount description
12. What called other
    Where obtained other
13. Where obtained
14. Food eaten at home
15. Food brought into the home
16. Notepad
    Request review
17. Salt

5. Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 1 (males, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables

DIM1	PS_MSA (METRO)	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	1,307	60,303,664	80.5%	71,860,445	71,860,440	80.7%	1.19
2	0 (nonMSA)	397	14,570,482	19.5%	17,240,723	17,240,728	19.3%	1.18
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM12	REGION	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 Northeast	279	13,169,554	17.6%	17,519,582	17,519,581	19.7%	1.33
2	2 Midwest	423	17,177,864	22.9%	20,703,849	20,703,847	23.2%	1.21
3	3 South	598	25,661,569	34.3%	30,922,105	30,922,104	34.7%	1.20
4	4 West	404	18,865,158	25.2%	19,955,633	19,955,636	22.4%	1.06
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM2	KID5	KID17	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	1,090	45,009,033	60.1%	54,718,153	54,718,144	61.4%	1.22
2	0 (no)	1 (yes)	301	15,049,152	20.1%	18,232,249	18,232,256	20.5%	1.21
3	1 (yes)	0 (no)	166	8,519,256	11.4%	8,597,659	8,597,660	9.6%	1.01
4	1 (yes)	1 (yes)	147	6,296,703	8.4%	7,553,107	7,553,108	8.5%	1.20
Total			1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	372	16,063,710	21.5%	24,489,716	24,489,722	27.5%	1.52
2	0 (no)	1 (yes)	1,090	48,717,736	65.1%	53,558,811	53,558,801	60.1%	1.10
3	1 (yes)	0 (no)	242	10,092,699	13.5%	11,052,640	11,052,645	12.4%	1.10
Total			1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM4	FH40	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,598	69,042,854	92.2%	82,659,511	82,659,512	92.8%	1.20
2	1 (yes)	106	5,831,291	7.8%	6,441,658	6,441,656	7.2%	1.10
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 1 (males, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM5	HAVEJOB	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	515	16,701,771	22.3%	25,904,039	25,903,984	29.1%	1.55
2	1 (yes)	1,189	58,172,375	77.7%	63,197,129	63,197,184	70.9%	1.09
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM6	POVGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (0-75%)	127	3,064,795	4.1%	4,085,742	4,085,743	4.6%	1.33
2	2&3 (76-130%)	217	5,484,382	7.3%	6,711,342	6,711,342	7.5%	1.22
3	4 (131-300%)	512	23,423,553	31.3%	27,051,544	27,051,537	30.4%	1.15
4	5&6 (301%+)	848	42,901,416	57.3%	51,252,540	51,252,546	57.5%	1.19
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM7	STAMP12	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,583	71,554,029	95.6%	83,829,906	83,829,905	94.1%	1.17
2	1 (yes)	121	3,320,116	4.4%	5,271,262	5,271,263	5.9%	1.59
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM8	OWNHOME	AGEGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	5&6 (20-39)	312	14,394,297	19.2%	17,152,688	17,152,690	19.3%	1.19
2	0 (no)	7 (40-59)	119	4,941,342	6.6%	6,893,841	6,893,840	7.7%	1.40
3	0 (no)	8&9 (60+)	65	1,489,097	2.0%	2,615,870	2,615,869	2.9%	1.76
4	1 (yes)	5&6 (20-39)	368	19,318,730	25.8%	23,094,390	23,094,390	25.9%	1.20
5	1 (yes)	7 (40-59)	423	21,711,389	29.0%	24,121,135	24,121,134	27.1%	1.11
6	1 (yes)	8&9 (60+)	417	13,019,291	17.4%	15,223,244	15,223,244	17.1%	1.17
Total			1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM9	BLACK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,534	68,211,740	91.1%	79,648,092	79,648,093	89.4%	1.17
2	1 (yes)	170	6,662,406	8.9%	9,453,076	9,453,075	10.6%	1.42
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 1 (males, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM13	HISPANIC	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,543	68,343,090	91.3%	80,526,627	80,526,627	90.4%	1.18
2	1 (yes)	161	6,531,056	8.7%	8,574,541	8,574,541	9.6%	1.31
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM10	SEASON	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	359	15,043,990	20.1%	22,275,292	22,275,292	25.0%	1.48
2	2 (Spring)	491	20,704,129	27.7%	22,275,293	22,275,292	25.0%	1.08
3	3 (Summer)	492	21,962,025	29.3%	22,275,292	22,275,292	25.0%	1.01
4	4 (Fall)	362	17,164,001	22.9%	22,275,291	22,275,292	25.0%	1.30
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

DIM11	DAY_ITK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	266	11,156,354	14.9%	12,728,738	12,728,738	14.3%	1.14
2	2 (Monday)	222	9,842,855	13.1%	12,728,739	12,728,738	14.3%	1.29
3	3 (Tuesday)	238	11,083,614	14.8%	12,728,738	12,728,738	14.3%	1.15
4	4 (Wednesday)	217	9,252,776	12.4%	12,728,739	12,728,738	14.3%	1.38
5	5 (Thursday)	187	8,400,256	11.2%	12,728,738	12,728,738	14.3%	1.52
6	6 (Friday)	326	14,262,825	19.0%	12,728,739	12,728,738	14.3%	0.89
7	7 (Saturday)	248	10,875,465	14.5%	12,728,738	12,728,738	14.3%	1.17
Total		1,704	74,874,145	100.0%	89,101,168	89,101,168	100.0%	1.19

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 2 (females, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables

DIM1	PS_MSA (METRO)	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	1,196	68,223,045	80.7%	78,255,414	78,255,483	80.8%	1.15
2	0 (nonMSA)	336	16,345,184	19.3%	18,561,148	18,561,079	19.2%	1.14
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM12	REGION	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 Northeast	269	15,754,710	18.6%	19,471,273	19,471,275	20.1%	1.24
2	2 Midwest	352	18,924,981	22.4%	22,590,208	22,590,212	23.3%	1.19
3	3 South	557	29,893,726	35.3%	34,420,566	34,420,569	35.6%	1.15
4	4 West	354	19,994,812	23.6%	20,334,515	20,334,505	21.0%	1.02
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM2	KID5	KID17	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	859	46,396,977	54.9%	56,012,961	56,013,813	57.9%	1.21
2	0 (no)	1 (yes)	349	19,816,698	23.4%	21,408,253	21,407,979	22.1%	1.08
3	1 (yes)	0 (no)	169	10,032,875	11.9%	10,074,113	10,073,812	10.4%	1.00
4	1 (yes)	1 (yes)	155	8,321,680	9.8%	9,321,234	9,320,959	9.6%	1.12
Total			1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	292	15,548,651	18.4%	21,802,309	21,802,197	22.5%	1.40
2	0 (no)	1 (yes)	898	51,496,298	60.9%	54,887,897	54,887,798	56.7%	1.07
3	1 (yes)	0 (no)	342	17,523,280	20.7%	20,126,356	20,126,567	20.8%	1.15
Total			1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM4	FH40	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,385	75,373,146	89.1%	86,138,875	86,139,095	89.0%	1.14
2	1 (yes)	147	9,195,084	10.9%	10,677,687	10,677,467	11.0%	1.16
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 2 (females, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM5	HAVEJOB	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	664	34,211,032	40.5%	41,993,587	41,993,978	43.4%	1.23
2	1 (yes)	868	50,357,198	59.5%	54,822,975	54,822,584	56.6%	1.09
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM6	POVGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (0-75%)	170	6,200,560	7.3%	7,099,350	7,099,351	7.3%	1.14
2	2&3 (76-130%)	225	8,542,041	10.1%	10,158,507	10,158,551	10.5%	1.19
3	4 (131-300%)	435	25,893,829	30.6%	30,715,152	30,715,168	31.7%	1.19
4	5&6 (301%+)	702	43,931,800	51.9%	48,843,552	48,843,492	50.4%	1.11
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM7	STAMP12	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,335	77,191,084	91.3%	87,932,464	87,932,538	90.8%	1.14
2	1 (yes)	197	7,377,146	8.7%	8,884,098	8,884,024	9.2%	1.20
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM8	OWNHOME	AGEGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	5&6 (20-39)	269	14,939,350	17.7%	17,996,870	17,996,861	18.6%	1.20
2	0 (no)	7 (40-59)	148	6,031,709	7.1%	7,286,621	7,286,619	7.5%	1.21
3	0 (no)	8&9 (60+)	79	3,877,369	4.6%	4,659,686	4,659,682	4.8%	1.20
4	1 (yes)	5&6 (20-39)	290	20,117,891	23.8%	22,757,893	22,757,898	23.5%	1.13
5	1 (yes)	7 (40-59)	432	23,802,383	28.1%	25,177,067	25,177,070	26.0%	1.06
6	1 (yes)	8&9 (60+)	314	15,799,528	18.7%	18,938,426	18,938,431	19.6%	1.20
Total			1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM9	BLACK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,323	74,554,882	88.2%	85,022,701	85,022,695	87.8%	1.14
2	1 (yes)	209	10,013,348	11.8%	11,793,861	11,793,867	12.2%	1.18
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 2 (females, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM13	HISPANIC	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	1,395	77,821,613	92.0%	88,250,791	88,250,791	91.2%	1.13
2	1 (yes)	137	6,746,617	8.0%	8,565,771	8,565,771	8.8%	1.27
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM10	SEASON	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	291	16,525,159	19.5%	24,204,142	24,204,140	25.0%	1.46
2	2 (Spring)	422	23,855,021	28.2%	24,204,142	24,204,140	25.0%	1.01
3	3 (Summer)	461	24,010,424	28.4%	24,204,137	24,204,140	25.0%	1.01
4	4 (Fall)	358	20,177,626	23.9%	24,204,141	24,204,140	25.0%	1.20
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

DIM11	DAY_ITK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	227	12,117,594	14.3%	13,830,937	13,830,937	14.3%	1.14
2	2 (Monday)	230	12,726,303	15.0%	13,830,937	13,830,937	14.3%	1.09
3	3 (Tuesday)	215	12,470,635	14.7%	13,830,935	13,830,937	14.3%	1.11
4	4 (Wednesday)	202	10,909,629	12.9%	13,830,938	13,830,937	14.3%	1.27
5	5 (Thursday)	188	10,440,750	12.3%	13,830,938	13,830,937	14.3%	1.32
6	6 (Friday)	255	14,425,114	17.1%	13,830,937	13,830,937	14.3%	0.96
7	7 (Saturday)	215	11,478,205	13.6%	13,830,939	13,830,937	14.3%	1.20
Total		1,532	84,568,230	100.0%	96,816,562	96,816,562	100.0%	1.14

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 3 (children 0-5 years old)
Comparison of weighted CSFII and CPS totals by raking variables

DIM1	PS_MSA (METRO)	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	792	17,739,897	85.7%	19,919,698	19,919,713	81.8%	1.12
2	0 (nonMSA)	152	2,970,623	14.3%	4,443,772	4,443,757	18.2%	1.50
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM12	REGION	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 Northeast	173	3,722,022	18.0%	4,506,478	4,506,477	18.5%	1.21
2	2 Midwest	200	4,416,003	21.3%	5,409,563	5,409,554	22.2%	1.22
3	3 South	350	7,609,466	36.7%	8,289,086	8,289,079	34.0%	1.09
4	4 West	221	4,963,030	24.0%	6,158,343	6,158,360	25.3%	1.24
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM2	KID17	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	545	11,717,893	56.6%	13,362,265	13,362,274	54.8%	1.14
2	1 (yes)	399	8,992,628	43.4%	11,001,205	11,001,196	45.2%	1.22
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	120	2,506,856	12.1%	3,294,222	3,294,225	13.5%	1.31
2	0 (no)	1 (yes)	708	15,645,292	75.5%	17,571,435	17,571,487	72.1%	1.12
3	1 (yes)	0 (no)	116	2,558,373	12.4%	3,497,813	3,497,758	14.4%	1.37
Total			944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM5	HEADJOB	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	399	8,342,221	40.3%	10,743,673	10,743,621	44.1%	1.29
2	1 (yes)	545	12,368,300	59.7%	13,619,797	13,619,849	55.9%	1.10
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 3 (children 0-5 years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM6	POVGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (0-75%)	140	2,913,143	14.1%	4,056,874	4,056,863	16.7%	1.39
2	2&3 (76-130%)	159	3,101,983	15.0%	3,184,414	3,184,416	13.1%	1.03
3	4 (131-300%)	335	7,373,851	35.6%	8,769,239	8,769,238	36.0%	1.19
4	5&6 (301%+)	310	7,321,543	35.4%	8,352,943	8,352,953	34.3%	1.14
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM7	STAMP12	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	729	16,210,412	78.3%	18,911,290	18,911,290	77.6%	1.17
2	1 (yes)	215	4,500,109	21.7%	5,452,180	5,452,180	22.4%	1.21
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM8	OWNHOME	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	379	7,818,422	37.8%	10,710,274	10,710,300	44.0%	1.37
2	1 (yes)	565	12,892,099	62.2%	13,653,196	13,653,170	56.0%	1.06
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM4	SEX	AGEGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (M)	1 (0-2 yrs)	272	4,903,017	23.7%	6,121,871	6,121,875	25.1%	1.25
2	1 (M)	2 (3-5 yrs)	170	6,378,684	30.8%	6,338,165	6,338,160	26.0%	0.99
3	2 (F)	1 (0-2 yrs)	261	4,103,075	19.8%	5,814,798	5,814,802	23.9%	1.42
4	2 (F)	2 (3-5 yrs)	241	5,325,745	25.7%	6,088,637	6,088,633	25.0%	1.14
Total			944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM9	BLACK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	787	17,366,819	83.9%	20,360,304	20,360,312	83.6%	1.17
2	1 (yes)	157	3,343,702	16.1%	4,003,166	4,003,159	16.4%	1.20
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 3 (children 0-5 years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM13	HISPANIC	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	789	17,381,863	83.9%	20,312,983	20,312,983	83.4%	1.17
2	1 (yes)	155	3,328,658	16.1%	4,050,487	4,050,487	16.6%	1.22
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM10	SEASON	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	205	4,455,559	21.5%	6,090,868	6,090,868	25.0%	1.37
2	2 (Spring)	263	5,975,526	28.9%	6,090,870	6,090,868	25.0%	1.02
3	3 (Summer)	264	5,551,422	26.8%	6,090,868	6,090,868	25.0%	1.10
4	4 (Fall)	212	4,728,014	22.8%	6,090,864	6,090,868	25.0%	1.29
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

DIM11	DAY_ITK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	153	3,222,271	15.6%	3,480,499	3,480,496	14.3%	1.08
2	2 (Monday)	144	3,114,159	15.0%	3,480,493	3,480,496	14.3%	1.12
3	3 (Tuesday)	130	2,848,176	13.8%	3,480,498	3,480,496	14.3%	1.22
4	4 (Wednesday)	102	2,200,556	10.6%	3,480,498	3,480,496	14.3%	1.58
5	5 (Thursday)	127	2,751,044	13.3%	3,480,496	3,480,496	14.3%	1.27
6	6 (Friday)	156	3,670,776	17.7%	3,480,491	3,480,496	14.3%	0.95
7	7 (Saturday)	132	2,903,539	14.0%	3,480,495	3,480,496	14.3%	1.20
Total		944	20,710,521	100.0%	24,363,470	24,363,470	100.0%	1.18

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 4 (persons, 6-19 years old)
Comparison of weighted CSFII and CPS totals by raking variables

DIM1	PS_MSA (METRO)	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (MSA)	830	39,187,068	83.3%	42,770,367	42,770,398	79.3%	1.09
2	0 (nonMSA)	178	7,845,129	16.7%	11,182,650	11,182,619	20.7%	1.43
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM12	REGION	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 Northeast	189	8,846,469	18.8%	10,022,431	10,022,426	18.6%	1.13
2	2 Midwest	219	10,461,243	22.2%	13,190,118	13,190,110	24.4%	1.26
3	3 South	320	14,750,196	31.4%	18,578,223	18,578,216	34.4%	1.26
4	4 West	280	12,974,290	27.6%	12,162,246	12,162,265	22.5%	0.94
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM14	KID5	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	728	34,809,099	74.0%	39,794,015	39,794,015	73.8%	1.14
2	1 (yes)	280	12,223,099	26.0%	14,159,003	14,159,003	26.2%	1.16
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM2	KID17	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	47	2,237,533	4.8%	3,705,280	3,705,272	6.9%	1.66
2	1 (yes)	961	44,794,664	95.2%	50,247,737	50,247,746	93.1%	1.12
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM3	ADULT1	ADULT2	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	0 (no)	195	9,627,202	20.5%	13,884,822	13,884,846	25.7%	1.44
2	0 (no)	1 (yes)	655	30,841,737	65.6%	31,652,802	31,652,804	58.7%	1.03
3	1 (yes)	0 (no)	158	6,563,257	14.0%	8,415,394	8,415,367	15.6%	1.28
Total			1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 4 (persons, 6-19 years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM5	HEADJOB	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	358	16,110,744	34.3%	17,888,269	17,888,215	33.2%	1.11
2	1 (yes)	650	30,921,454	65.7%	36,064,749	36,064,802	66.8%	1.17
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM6	POVGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (0-75%)	167	5,962,411	12.7%	6,558,521	6,558,586	12.2%	1.10
2	2&3 (76-130%)	153	5,647,902	12.0%	6,673,145	6,673,182	12.4%	1.18
3	4 (131-300%)	306	15,760,555	33.5%	18,437,615	18,437,593	34.2%	1.17
4	5&6 (301%+)	382	19,661,329	41.8%	22,283,737	22,283,657	41.3%	1.13
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM7	STAMP12	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	824	40,244,833	85.6%	45,406,170	45,406,112	84.2%	1.13
2	1 (yes)	184	6,787,365	14.4%	8,546,847	8,546,905	15.8%	1.26
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM8	OWNHOME	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	348	14,124,024	30.0%	18,064,247	18,064,276	33.5%	1.28
2	1 (yes)	660	32,908,173	70.0%	35,888,770	35,888,742	66.5%	1.09
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM4	SEX	AGEGRP	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (M)	3 (6-11 yrs)	265	11,180,013	23.8%	12,146,162	12,146,171	22.5%	1.09
2	1 (M)	4 (12-19 yrs)	255	11,994,975	25.5%	15,398,675	15,398,665	28.5%	1.28
3	2 (F)	3 (6-11 yrs)	235	10,941,714	23.3%	11,575,982	11,575,982	21.5%	1.06
4	2 (F)	4 (12-19 yrs)	253	12,915,494	27.5%	14,832,199	14,832,201	27.5%	1.15
Total			1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

ARS Subset 4 (persons, 6-19 years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM9	BLACK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	833	39,837,893	84.7%	45,323,796	45,323,802	84.0%	1.14
2	1 (yes)	175	7,194,304	15.3%	8,629,222	8,629,216	16.0%	1.20
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM13	HISPANIC	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	0 (no)	816	38,739,897	82.4%	46,716,244	46,716,242	86.6%	1.21
2	1 (yes)	192	8,292,300	17.6%	7,236,773	7,236,775	13.4%	0.87
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM10	SEASON	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Winter)	212	8,918,691	19.0%	13,488,255	13,488,254	25.0%	1.51
2	2 (Spring)	311	13,510,346	28.7%	13,488,259	13,488,254	25.0%	1.00
3	3 (Summer)	270	13,021,560	27.7%	13,488,250	13,488,254	25.0%	1.04
4	4 (Fall)	215	11,581,600	24.6%	13,488,253	13,488,254	25.0%	1.16
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

DIM11	DAY_ITK	CSFII sample size (Day 1	Pre-raked CSFII estimate	CSFII percent	Final (post-raked) CSFII estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to CSFII
1	1 (Sunday)	165	7,891,405	16.8%	7,707,575	7,707,574	14.3%	0.98
2	2 (Monday)	134	6,180,558	13.1%	7,707,577	7,707,574	14.3%	1.25
3	3 (Tuesday)	129	6,138,490	13.1%	7,707,578	7,707,574	14.3%	1.26
4	4 (Wednesday)	121	5,693,375	12.1%	7,707,576	7,707,574	14.3%	1.35
5	5 (Thursday)	127	5,925,080	12.6%	7,707,566	7,707,574	14.3%	1.30
6	6 (Friday)	173	8,094,321	17.2%	7,707,572	7,707,574	14.3%	0.95
7	7 (Saturday)	159	7,108,969	15.1%	7,707,574	7,707,574	14.3%	1.08
Total		1,008	47,032,197	100.0%	53,953,018	53,953,018	100.0%	1.15

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

DHKS Weights
ARS Subset 1 (males, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables

DIM1	PS_MSA (METRO)	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (MSA)	751	57,430,574	79.6%	71,860,454	71,860,440	80.7%	1.25
2	0 (nonMSA)	257	14,711,518	20.4%	17,240,714	17,240,728	19.3%	1.17
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM12	REGION	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 Northeast	173	12,849,158	17.8%	17,519,588	17,519,581	19.7%	1.36
2	2 Midwest	260	16,527,064	22.9%	20,703,859	20,703,847	23.2%	1.25
3	3 South	344	25,753,668	35.7%	30,922,109	30,922,104	34.7%	1.20
4	4 West	231	17,012,202	23.6%	19,955,613	19,955,636	22.4%	1.17
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM2	KID5	KID17	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	667	42,374,490	58.7%	54,718,575	54,718,144	61.4%	1.29
2	0 (no)	1 (yes)	162	14,902,047	20.7%	18,232,077	18,232,256	20.5%	1.22
3	1 (yes)	0 (no)	97	8,910,712	12.4%	8,597,525	8,597,660	9.6%	0.96
4	1 (yes)	1 (yes)	82	5,954,843	8.3%	7,552,991	7,553,108	8.5%	1.27
Total			1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM3	ADULT1	ADULT2	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	151	13,878,694	19.2%	24,489,700	24,489,722	27.5%	1.76
2	0 (no)	1 (yes)	637	48,369,034	67.0%	53,558,821	53,558,801	60.1%	1.11
3	1 (yes)	0 (no)	220	9,894,364	13.7%	11,052,648	11,052,645	12.4%	1.12
Total			1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM4	FH40	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	949	66,562,800	92.3%	82,659,548	82,659,512	92.8%	1.24
2	1 (yes)	59	5,579,292	7.7%	6,441,620	6,441,656	7.2%	1.15
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

DHKS Weights
ARS Subset 1 (males, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM5	HAVEJOB	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	320	15,384,957	21.3%	25,904,223	25,903,984	29.1%	1.68
2	1 (yes)	688	56,757,135	78.7%	63,196,945	63,197,184	70.9%	1.11
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM6	POVGRP	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (0-75%)	81	2,957,441	4.1%	4,085,701	4,085,743	4.6%	1.38
2	2&3 (76-130%)	133	5,358,747	7.4%	6,711,302	6,711,342	7.5%	1.25
3	4 (131-300%)	291	22,178,297	30.7%	27,051,552	27,051,537	30.4%	1.22
4	5&6 (301%+)	503	41,647,607	57.7%	51,252,613	51,252,546	57.5%	1.23
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM7	STAMP12	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	935	69,072,954	95.7%	83,829,926	83,829,905	94.1%	1.21
2	1 (yes)	73	3,069,138	4.3%	5,271,242	5,271,263	5.9%	1.72
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM8	OWNHOME	AGEGRP	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	5&6 (20-39)	170	12,776,065	17.7%	17,152,661	17,152,690	19.3%	1.34
2	0 (no)	7 (40-59)	78	4,980,495	6.9%	6,893,847	6,893,840	7.7%	1.38
3	0 (no)	8&9 (60+)	49	1,468,272	2.0%	2,615,868	2,615,869	2.9%	1.78
4	1 (yes)	5&6 (20-39)	199	17,828,994	24.7%	23,094,402	23,094,390	25.9%	1.30
5	1 (yes)	7 (40-59)	241	22,492,250	31.2%	24,121,139	24,121,134	27.1%	1.07
6	1 (yes)	8&9 (60+)	271	12,596,016	17.5%	15,223,251	15,223,244	17.1%	1.21
Total			1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM9	BLACK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	921	66,020,642	91.5%	79,648,082	79,648,093	89.4%	1.21
2	1 (yes)	87	6,121,450	8.5%	9,453,086	9,453,075	10.6%	1.54
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

DHKS Weights
ARS Subset 1 (males, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM13	HISPANIC	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	921	66,606,344	92.3%	80,526,627	80,526,627	90.4%	1.21
2	1 (yes)	87	5,535,748	7.7%	8,574,541	8,574,541	9.6%	1.55
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM10	SEASON	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (Winter)	235	15,310,669	21.2%	22,275,297	22,275,292	25.0%	1.45
2	2 (Spring)	306	21,755,331	30.2%	22,275,295	22,275,292	25.0%	1.02
3	3 (Summer)	274	20,088,473	27.8%	22,275,301	22,275,292	25.0%	1.11
4	4 (Fall)	193	14,987,619	20.8%	22,275,275	22,275,292	25.0%	1.49
Total		1,008	72,142,092	100.0%	89,101,168	89,101,168	100.0%	1.24

DIM11	DAY_ITK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (Sunday)	165	11,511,191	16.0%	12,728,739	12,728,738	14.3%	1.11
2	2 (Monday)	129	9,240,947	12.8%	12,728,736	12,728,738	14.3%	1.38
3	3 (Tuesday)	122	9,428,568	13.1%	12,728,744	12,728,738	14.3%	1.35
4	4 (Wednesday)	126	9,113,173	12.6%	12,728,734	12,728,738	14.3%	1.40
5	5 (Thursday)	112	7,612,720	10.6%	12,728,736	12,728,738	14.3%	1.67
6	6 (Friday)	206	14,042,438	19.5%	12,728,746	12,728,738	14.3%	0.91
7	7 (Saturday)	148	11,193,054	15.5%	12,728,733	12,728,738	14.3%	1.14
Total		1,008	72,142,091	100.0%	89,101,168	89,101,168	100.0%	1.24

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

DHKS Weights
ARS Subset 2 (females, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables

DIM1	PS_MSA (METRO)	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (MSA)	705	70,068,659	80.7%	78,255,597	78,255,483	80.8%	1.12
2	0 (nonMSA)	207	16,744,590	19.3%	18,560,965	18,561,079	19.2%	1.11
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM12	REGION	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 Northeast	175	17,239,587	19.9%	19,471,266	19,471,275	20.1%	1.13
2	2 Midwest	221	20,602,613	23.7%	22,590,192	22,590,212	23.3%	1.10
3	3 South	318	28,680,165	33.0%	34,420,553	34,420,569	35.6%	1.20
4	4 West	198	20,290,884	23.4%	20,334,550	20,334,505	21.0%	1.00
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM2	KID5	KID17	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	537	48,406,785	55.8%	56,014,518	56,013,813	57.9%	1.16
2	0 (no)	1 (yes)	208	20,579,152	23.7%	21,407,803	21,407,979	22.1%	1.04
3	1 (yes)	0 (no)	88	9,805,542	11.3%	10,073,528	10,073,812	10.4%	1.03
4	1 (yes)	1 (yes)	79	8,021,770	9.2%	9,320,712	9,320,959	9.6%	1.16
Total			912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM3	ADULT1	ADULT2	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	0 (no)	119	15,773,979	18.2%	21,802,076	21,802,197	22.5%	1.38
2	0 (no)	1 (yes)	474	53,201,499	61.3%	54,887,809	54,887,798	56.7%	1.03
3	1 (yes)	0 (no)	319	17,837,771	20.5%	20,126,676	20,126,567	20.8%	1.13
Total			912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM4	FH40	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	826	77,246,815	89.0%	86,139,260	86,139,095	89.0%	1.12
2	1 (yes)	86	9,566,434	11.0%	10,677,302	10,677,467	11.0%	1.12
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

DHKS Weights
ARS Subset 2 (females, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM5	HAVEJOB	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	404	34,370,635	39.6%	41,994,266	41,993,978	43.4%	1.22
2	1 (yes)	508	52,442,615	60.4%	54,822,296	54,822,584	56.6%	1.05
Total		912	86,813,250	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM6	POVGRP	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (0-75%)	117	5,986,954	6.9%	7,099,479	7,099,351	7.3%	1.19
2	2&3 (76-130%)	147	8,420,141	9.7%	10,158,681	10,158,551	10.5%	1.21
3	4 (131-300%)	252	26,907,690	31.0%	30,715,211	30,715,168	31.7%	1.14
4	5&6 (301%+)	396	45,498,464	52.4%	48,843,191	48,843,492	50.4%	1.07
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM7	STAMP12	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	776	79,492,317	91.6%	87,932,549	87,932,538	90.8%	1.11
2	1 (yes)	136	7,320,933	8.4%	8,884,013	8,884,024	9.2%	1.21
Total		912	86,813,250	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM8	OWNHOME	AGEGRP	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	5&6 (20-39)	156	16,285,442	18.8%	17,996,888	17,996,861	18.6%	1.11
2	0 (no)	7 (40-59)	104	6,498,472	7.5%	7,286,618	7,286,619	7.5%	1.12
3	0 (no)	8&9 (60+)	64	3,964,823	4.6%	4,659,675	4,659,682	4.8%	1.18
4	1 (yes)	5&6 (20-39)	154	21,273,372	24.5%	22,757,912	22,757,898	23.5%	1.07
5	1 (yes)	7 (40-59)	234	22,414,682	25.8%	25,177,054	25,177,070	26.0%	1.12
6	1 (yes)	8&9 (60+)	200	16,376,459	18.9%	18,938,414	18,938,431	19.6%	1.16
Total			912	86,813,250	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM9	BLACK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	778	76,395,974	88.0%	85,022,699	85,022,695	87.8%	1.11
2	1 (yes)	134	10,417,275	12.0%	11,793,863	11,793,867	12.2%	1.13
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

Attachment 5
Variables Used in Calibration Adjustments and CPS Control Totals, by ARS Subset

DHKS Weights
ARS Subset 2 (females, 20+ years old)
Comparison of weighted CSFII and CPS totals by raking variables (Continued)

DIM13	HISPANIC	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	0 (no)	839	79,885,914	92.0%	88,250,791	88,250,791	91.2%	1.10
2	1 (yes)	73	6,927,335	8.0%	8,565,771	8,565,771	8.8%	1.24
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM10	SEASON	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (Winter)	168	16,439,240	18.9%	24,204,150	24,204,140	25.0%	1.47
2	2 (Spring)	237	23,052,023	26.6%	24,204,133	24,204,140	25.0%	1.05
3	3 (Summer)	289	26,379,193	30.4%	24,204,142	24,204,140	25.0%	0.92
4	4 (Fall)	218	20,942,793	24.1%	24,204,137	24,204,140	25.0%	1.16
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12

DIM11	DAY_ITK	DHKS sample size (resp.)	Pre-raked DHKS estimate	DHKS percent	Final (post-raked) DHKS estimate	March 1996 CPS (MARSUWT)	CPS percent	Ratio CPS to DHKS
1	1 (Sunday)	133	11,967,288	13.8%	13,830,939	13,830,937	14.3%	1.16
2	2 (Monday)	154	14,801,163	17.0%	13,830,932	13,830,937	14.3%	0.93
3	3 (Tuesday)	133	13,722,016	15.8%	13,830,935	13,830,937	14.3%	1.01
4	4 (Wednesday)	116	11,089,089	12.8%	13,830,937	13,830,937	14.3%	1.25
5	5 (Thursday)	115	10,695,812	12.3%	13,830,944	13,830,937	14.3%	1.29
6	6 (Friday)	148	13,735,196	15.8%	13,830,937	13,830,937	14.3%	1.01
7	7 (Saturday)	113	10,802,685	12.4%	13,830,940	13,830,937	14.3%	1.28
Total		912	86,813,249	100.0%	96,816,562	96,816,562	100.0%	1.12